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VOLUME 4 OF 6

RESULTS OF HEAT TRANSFER TESTS IN THE  
ARNOLD ENGINEERING DEVELOPMENT CENTER -  
VON KARMAN FACILITY TUNNELS A AND B UTILIZING  
SPACE SHUTTLE ORBITER THIN SKIN THERMOCOUPLE MODEL  
56-0, 60-0 AND 83-0

TESTS: OH-84B, OH-105, IH-102

# SPACE SHUTTLE AEROTHERMODYNAMIC DATA REPORT

AUG 1981

Data Management SERVICES

HUNTSVILLE ELECTRONICS DIVISION



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by

J. W. Foust  
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Space Transportation System Development and Production Division

Prepared under NASA Contract Number NAS9-16283

by

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Chrysler Huntsville Electronics Division  
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for

Engineering Analysis Division  
  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: V41A-67 (Tunnel A), V41B-67 (Tunnel B)  
NASA Series Number: IH102 (Tunnel A), OH84B, OH105 (Tunnel B)  
Model Number: 56-0, 60-OTS, 83-0  
Test Dates: May 2 thru May 23, 1979  
Occupancy Hours: OH84B: 58.3  
OH105: 12.8  
IH102: 39.6  
TOTAL: 110.7

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# PUBLICATION CHANGE

THE FOLLOWING CHANGES APPLY TO PUBLICATION: Space Shuttle Report  
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## REASON FOR CHANGE:

Revise Yo geometry label for thermocouples 87A, 88A and 89A as follows:

Thermocouple No.	X0	Yo	
		Original	Revised
87A	9.799	1.709	1.101
88A	9.705	1.101	0.672
89A	9.717	0.672	1.709

Data replacements have been generated and a publication change effected to Table V for all volumes and for data tabulations for all affected volumes.

This page is an errata sheet and is to remain a permanent part of DR-2464. Replace page 85 of the text material.

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RESULTS OF HEAT TRANSFER TESTS IN THE  
ARNOLD ENGINEERING DEVELOPMENT CENTER -  
VON KARMAN FACILITY TUNNELS A AND B UTILIZING  
SPACE SHUTTLE ORBITER THIN SKIN THERMOCOUPLE MODELS  
56-0, 60-0 AND 83-0

TESTS: OH-84B, OH-105, IH-102

by

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ABSTRACT

A series of thin-skin thermocouple heat transfer tests were conducted using scaled Space Shuttle models in the Arnold Engineering Development Center, von Karman facility (AEDC-VKF) Supersonic Wind Tunnel A and Hypersonic Wind Tunnel B to determine aerodynamic heating on the Space Shuttle orbiter where data extrapolation or analytical predictions were not feasible and where previous data did not exist. Secondary test objectives were to obtain limited yaw data and to obtain contingency abort trajectory data. The test series consisted of NASA tests OH84B and OH105 in Tunnel B and IH102 in Tunnel A with Space Shuttle orbiter models 56-0 (0.0175 scale), 60-0 (0.0175 scale), and 83-0 (0.040 scale) configured into ten different model installations. Included in the ten installations tested were each orbiter model and the two 0.0175 scale models integrated with the 0.0175 scale external tank and solid rocket boosters.

Data were recorded at Mach numbers 3 and 4 in Tunnel A with simulated Reynolds numbers of  $1.0 \times 10^6/\text{ft}$  to  $4.0 \times 10^6/\text{ft}$  and at Mach 8 in Tunnel B with simulated Reynolds numbers of  $0.5 \times 10^6/\text{ft}$  to  $3.7 \times 10^6/\text{ft}$ . Model angle of attack varied from  $-40$  to  $+40$  degrees. Model yaw angle varied from  $-15$  to  $+10$  degrees. The high negative angle of attack was a contingency abort trajectory simulation.

All objectives of the test series were fulfilled. Six hundred and eight (608) data runs were obtained to support the test objectives, 383 for test OH84B, 78 for test OH105, and 147 for test IH102.

The model configurations, instrumentation, test procedures, and data reduction are described in this report.

Tabulated heat transfer data are presented in the Appendix. Volumes 1-4 contain OH84B tabulations; likewise, Volume 5 contains OH105, and Volume 6 contains IH102.

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## INTRODUCTION

Aerodynamic heating can be complex during the Space Shuttle flight cycle due to the exposure of the somewhat conventional airplane-shaped orbiter to the launch and reentry environments. A test series was conducted in the Arnold Engineering Development Center, von Karman Facility 40-inch Supersonic Wind Tunnel A and 50-inch Hypersonic Wind Tunnel B during the period May 2-23, 1979 to obtain heat transfer data in regions of the Space Shuttle orbiter where data extrapolation or analytical prediction are not feasible and where previous data did not exist. Additional objectives were to obtain limited yaw data and to obtain contingency abort trajectory data. The test series combined three NASA tests, OH84B, OH105, and IH102, using three Space Shuttle orbiter scaled models, 56-0 (0.0175 scale), 60-0 (0.0175 scale), and 83-0 (0.040 scale), installed in ten different configurations.

Data were recorded from the orbiter models at Mach numbers 3 and 4 in Tunnel A for nominal Reynolds numbers ranging from  $1.0 \times 10^6/\text{ft}$  to  $4.0 \times 10^6/\text{ft}$  and at Mach number 8 in Tunnel B for nominal Reynolds numbers ranging from  $0.5 \times 10^6/\text{ft}$  to  $3.7 \times 10^6/\text{ft}$ . Model angle of attack ranged from -40 to +40 degrees with model angle of sideslip varying from -15 to +10 degrees.

Results of the test series are presented in this report.

# NOMENCLATURE

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
$a_1, a_2, a_3$		Constants used to calculate R
$\alpha$	ALPHA	Model angle of attack, degrees
AEDC		Arnold Engineering Development Center
b		Model skin thickness, inches
$\beta$	BETA	Model sideslip angle, degrees
Con.Set		Set of thermocouples recorded together
COORD1		First thermocouple location coordinate
COORD2		Second thermocouple location coordinate
Cp		Model skin material specific heat, Btu/lbm-°R
C.R.		Center of Rotation
DTWDT	DTWDT	Time rate of change of wall temperature, °R/sec.
$\delta_{BF}$	BDFLAP	Body flap deflection angle, degrees
$\delta_e$	ELEVON	Elevon deflection angle, degrees
$\delta_{SB}$	SPDBRK	Speedbrake deflection angle, degrees
$\epsilon$		Incidence angle of local model surface, degrees
HREF	HREF HREF-FR	Reference heat transfer coefficient based on Fay and Riddell theory, Btu/ft <sup>2</sup> - sec - °R
H(RTO)	H(RTO)	Heat transfer coefficient based on RTO, Btu/ft <sup>2</sup> - sec - °R
	H(TAW)	Heat transfer coefficient based on TAW, Btu/ft <sup>2</sup> - sec - °R

# NOMENCLATURE (Continued)

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
L		Reference length, inches
MACH NO	MACH	Mach number
$\mu$	MU	Freestream viscosity, lbf-sec/ft <sup>2</sup>
MUO		Viscosity based on stagnation temperature, lbf-sec/ft <sup>2</sup>
PO	PO	Tunnel stilling chamber pressure, psia
P-INF	P	Freestream static pressure
PO2		Stagnation pressure downstream of normal shock, psia
q	Q-INF	Tunnel freestream dynamic pressure, psi
Q-INF	Q	
	QDOT	Heat transfer rate, Btu/ft <sup>2</sup> -sec
RE/FT RN	RN/L	Reynolds number per unit length
R	TAW/TO	Analytical temperature ratio
RTO		Tunnel stilling chamber pressure adjusted for theoretical recovery factor, °R
RHO-INF	RHO	Free stream density, lbm/ft <sup>3</sup> .
STFR	STN NO	Stanton number based on HREF
SW.Pos		Switch position
t <sub>i</sub>		Time when initial model wall temperature was recorded before model injection, seconds
t		Time from start of model injection cycle, seconds

# NOMENCLATURE (Continued)

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
TAW	TAW	Computed adiabatic wall temperature, °R
T/C	T/CNO.	Thermocouple number
	T	Tunnel freestream static temperature, °R
TO	TO	Tunnel stilling chamber temperature, °R
TW		Model wall temperature at midpoint of data interval, °R
TW <sub>i</sub>		Initial model wall temperature before injection, °R
V-INF	V	Tunnel freestream velocity, ft/sec
VKF		Von Karmen Facility
w		Model skin material density, lbm/ft <sup>3</sup>
	WINDOW	Window number where specific thermocouples are located
X	XO MS	Model scale axial coordinate from model nose or leading edge of wing or vertical tail, inches
X <sub>o</sub>		Model scale axial coordinate from a point 235 inches (FS) ahead of the orbiter nose, inches
X/C	XV/CV	Percent of vertical tail chord
X/L		Thermocouple axial location from model nose as a ratio to model length
X <sub>n</sub>		Model scale axial coordinate of nozzle, inches
Y	YO MS	Model scale lateral coordinate, inches
Y <sub>o</sub>		Full scale lateral coordinate, inches

# NOMENCLATURE (Concluded)

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
Z	ZO MS	Model scale vertical coordinate, inches
Zo		Full scale vertical coordinate, inches
Z/B	ZV/BV	Percent of vertical tail span
2Y/B	2Y/B	Ratio of thermocouple distance from model centerline to model semispan
$\phi$	PHI	Radial angle of thermocouple in model coordinates, degrees
$\phi_n$		Radial angle of thermocouple on nozzle, degrees

### REMARKS

In presenting heat-transfer coefficient results, it is convenient to use reference coefficients to normalize the data. Equilibrium stagnation point values derived from the work of Fay and Riddell (Reference 6) were used to normalize the data obtained in this test. These reference coefficients are given by:

$$HREF = \frac{8.17173(P02)^{0.5} (MUO)^{0.4} \left[1 - \frac{(P-INF)}{P02}\right]^{0.25} \left[0.2235 + (1.35 \times 10^{-5})(TO + 560)\right]}{(RN)^{0.5} (TO)^{0.15}}$$

$$STFR = \frac{HREF}{(RHO-INF) (V-INF) \left[0.2235 + 1.35 \times 10^{-5} (TO + 560)\right]}$$

### CONFIGURATIONS INVESTIGATED

Three Space Shuttle orbiter models were used to obtain the thin-skin thermocouple data for this test. Two of the test articles were 0.0175 scale models of the full orbiter and were designated as the 60-Ø and 56-Ø models. The third model was a 0.04 scale, 50 percent forebody model of the orbiter, and was identified as the 83-Ø model. All of the models were supplied by Rockwell International.

The 60-Ø model was a 0.0175 scale thin-skin thermocouple model of the Rockwell International Vehicle 5 configuration. The model was constructed of 17-4 PH stainless steel with a nominal skin thickness of 0.030 in. at the instrumented areas. All thermocouples were spot welded to the thin-skin inner surface.

A photograph of the 60-Ø model injected in the Tunnel B test section is shown in Figure 1. The basic dimensions and coordinate definitions for the 0.0175 scale model are shown in the sketch presented in Figure 2. The deflection angles of the speedbrake, body flap and elevons were varied during these tests and recorded on the tabulated data.

The 56-Ø model was a 0.0175 scale phase change paint model with the same external contour as the 60-Ø model except for the vertical tail. The vertical tail used was a slab tail of extended span used for previous oil flow tests to determine flow orientation at the leading edge. The pilot side

## CONFIGURATIONS INVESTIGATED (Continued)

(left) of the fuselage has been replaced with a thin-skin thermocouple insert contoured to the vehicle lines. This insert was constructed of 17-4 PH stainless steel with a nominal skin thickness of 0.020 in. at the thermocouple locations. A photograph of the 56-Ø model injected in Tunnel A is shown in Figure 3. The dimensions and coordinate system presented in Figure 2 also apply to the 0.0175 scale 56-Ø model.

The 83-Ø model was a 0.04 scale model of the forward 50 percent of the orbiter. This model was also constructed of 17-4 PH stainless steel with a nominal skin thickness of 0.030 in. A photograph of the 83-Ø model injected in Tunnel B is shown in Figure 4. The coordinate system and basic dimensions for the 83-Ø model are presented in Figure 5.

Each of the orbiter models was installed in more than one configuration to fulfill the test requirements of Mach number (Tunnel selection), angle of attack, and yaw. Both the 56-Ø and the 60-Ø models were tested as the orbiter alone and were also mated with the external tank and both solid rocket boosters, designated as the OTS configuration. Installation sketches of each of the ten configurations are presented in Figure 6. The installations illustrated in Figures 6c and 6d each represent two configurations by interchanging the 56-Ø and 60-Ø models. Each installation was identified with a configuration code that is listed in Table 4.



## CONFIGURATIONS INVESTIGATED (Continued)

### Model Nomenclature

Nomenclature used to describe the various components of the three models used for these tests are:

#### Model 56-0 Orbiter (Vehicle 5 Configuration, VL70-00140C Lines)

B <sub>62</sub>	Fuselage
C <sub>12</sub>	Canopy
E <sub>52</sub>	Elevon
F <sub>10</sub>	Body Flap
M <sub>16</sub>	OMS Pod
V <sub>30</sub>	Vertical Tail
W <sub>127</sub>	Wing

#### Model 60-0 Orbiter (Vehicle 5 Configuration, VL70-00140C Lines)

B <sub>62</sub>	Fuselage
C <sub>12</sub>	Canopy
E <sub>52</sub>	Elevon
F <sub>10</sub>	Body Flap
M <sub>16</sub>	OMS Pods
R <sub>18</sub>	Rudder
V <sub>8</sub>	Vertical Tail
W <sub>116</sub>	Wing

## CONFIGURATIONS INVESTIGATED (Concluded)

Model 60-0 External Tank and SRB's (Vehicle 5 Configuration, VC72-000002F Shuttle Configuration Control)

T <sub>38</sub>	External Tank (Spike Nose), VC78-000002E Lines
S <sub>26</sub>	Solid Rocket Booster, VC77-000002G and VC77-000003F Lines

Model 83-0 Orbiter (VL70-000140C Lines)

B <sub>60</sub>	Fuselage
C <sub>10</sub>	Canopy

Full scale and model scale dimensional data for the various components of the three models can be found in Table III.

Further model description, including some model drawings, can be found in References 1-3.

## INSTRUMENTATION

### Test Conditions

Tunnel A stilling chamber pressure was measured with a 15-, 60-, 150-, or a 300-psid transducer referenced to a near vacuum. Based on periodic comparisons with secondary standards, the accuracy (a bandwidth which includes 95 percent of the residuals, i.e.  $2\sigma$  deviation) of these transducers is estimated to be within  $\pm 0.2$  percent of pressure or  $\pm 0.015$  psi, whichever is greater. Stilling chamber temperature was measured with a copper-constantan thermocouple with an accuracy of  $\pm 3^\circ\text{F}$ .

Tunnel B stilling chamber pressure was measured with a 200- or 1000-psid transducer referenced to a near vacuum. Based on periodic comparisons with secondary standards, the accuracy of the transducers is estimated to be within  $\pm 0.25$  percent of pressure or  $\pm 0.3$  psi, whichever is greater for the 200-psid range and  $\pm 0.25$  percent of pressure or  $\pm 0.8$  psi, whichever is greater for the 1000-psid range. Stilling chamber temperature measurements were made with Chromel<sup>®</sup>-Alumel<sup>®</sup> thermocouples which have an uncertainty of  $\pm (1.5^\circ\text{F} + 0.375 \text{ percent of reading in } ^\circ\text{F})$ .

### Test Data

The 60-Ø model instrumentation consisted of 600 thirty gauge iron-constantan and chromel-constantan thermocouples. Thermocouple locations for this model are illustrated in Figure 7; the dimensional locations and

## INSTRUMENTATION (Continued)

skin thickness are listed in Table V. The thermocouples identified by a number only are iron-constantan. The thermocouples identified by a number followed by the letter A or C are chromel-constantan. The letter A designates a new thermocouple location added specifically for this test. The letter C designates the location of a previously existing thermocouple which has been repaired with chromel-constantan wire.

The 56-Ø model instrumentation consisted of 80 thirty gauge chromel-constantan thermocouples located on the thin-skin insert. The thermocouple locations for this model are illustrated in Figure 8. The dimensional locations and skin thicknesses are listed in Table VI.

The 83-Ø model was instrumented with 482 thirty gauge chromel-constantan thermocouples as illustrated in Figure 9. The dimensional locations and skin thicknesses for the thermocouples on this model are listed in Table VII.

Data from a maximum of 97 thermocouples in Tunnel B and 96 thermocouples in Tunnel A could be recorded during each tunnel injection. Seventeen sets of thermocouples were required to accommodate the large number of thermocouples on this test. These sets are called Constant Sets in Table II. A listing of the seventeen Constant Sets is given in Table VIII. This listing includes all of the thermocouples that were installed for the test. Some of the listed thermocouples were determined

#### INSTRUMENTATION (Concluded)

to be inoperative and these have been deleted from the tabulated data. A total of three Constant Sets could be connected at one time. A three position selector switch was used to select the desired Constant Set for each injection. The last digit of the Constant Set number usually indicates the selector switch position number. The specific Constant Sets that were connected for each model configuration are listed in Table IV.

### TEST FACILITY DESCRIPTION

The von Karmen Gas Dynamics Facility (VKF) consists of multiple wind tunnels, ranges and chambers and is located within the Arnold Engineering Development Center (AEDC) in Tullahoma, Tennessee. The supersonic Tunnel A and hypersonic Tunnel B are part of this complex.

Tunnels A and B (Figures 10 and 11) are continuous, closed-circuit, variable density wind tunnels. Tunnel A has an automatically driven flexible-plate-type nozzle and a 40- by 40-in. test section. The tunnel can be operated at Mach numbers from 1.5 to 6 at maximum stagnation pressures from 29 to 200 psia, respectively, and stagnation temperatures up to 750°R at Mach number 6. Minimum operating pressures range from about one-tenth to one-twentieth of the maximum at each Mach number.

Tunnel B has a 50-in.-diam test section and two interchangeable axisymmetric contoured nozzles to provide Mach numbers of 6 and 8. The tunnel can be operated continuously over a range of pressure levels from 20 to 300 psia at Mach number 6, and 50 to 900 psia at Mach number 8, with air supplied by the VKF main compressor plant. Stagnation temperatures sufficient to avoid air liquefaction in the test section (up to 1350°R) are obtained through the use of a natural gas fired combustion heater. The entire tunnel (throat, nozzle, test section, and diffuser) is cooled by integral, external water jackets. Each tunnel is equipped with a model injection system which allows removal of the model from the test section

#### TEST FACILITY DESCRIPTION (Concluded)

while the tunnel remains in operation. A description of the tunnels may be found in Reference 4.

## TEST PROCEDURES

The test was conducted at a nominal Mach number of 8 in Tunnel B and nominal Mach numbers of 3 and 4 in Tunnel A. A summary of the specific test conditions is given in Table I. A more detailed test summary showing all configurations tested and the variables for each is presented in Table II.

In the VKF continuous flow wind tunnels (A and B), the model is mounted on a sting support mechanism in an installation tank directly underneath the tunnel test section. The tank is separated from the tunnel by a pair of fairing doors and a safety door. When closed, the fairing doors, except for a slot for the pitch sector, cover the opening to the tank, and the safety door seals the tunnel from the tank area. After the model is prepared for a data run, the personnel access door to the installation tank is closed, the tank is vented to the tunnel flow, the safety and fairing doors are closed. After the data are obtained, the model is retracted into the tank, and the sequence is reversed with the tank being vented to atmosphere to allow access to the model in preparation for the next run, if necessary. The sequence is repeated for each configuration change.

The initial step prior to recording the test data in each tunnel was to cool the model uniformly to approximately 80°F with high pressure air. Once the cooling cycle was complete, the desired model attitude was



## TEST PROCEDURES (Concluded)

established in the tank prior to injection. With the desired tunnel free stream conditions established, the model was then injected into the tunnel. At lift-off, the initial temperature,  $TW_i$ , for each thermocouple on the selected Constant Set was recorded. In Tunnel A, the data acquisition sequence was started prior to the model reaching the airstream. When the model reached tunnel centerline, it was translated to the forward test section to clear an area of tank induced shock impingement. The data acquisition sequence continued until the model reached the full forward position, approximately 8 seconds after lift-off. In Tunnel B, the model was injected directly into the test section. Therefore, the data acquisition sequence was initiated at lift-off and continued for approximately 3 seconds after the model reached the tunnel centerline. After each injection the model was retracted, and the cycle was repeated to cool the model to an isothermal state.

A Beckman<sup>®</sup> 210 analog-to-digital converter was used in conjunction with a Digital Equipment Corp.<sup>®</sup> (DEC) PDP-11 computer and a DEC-10 computer to record the temperature data. The Beckman<sup>®</sup> converter sampled the output of each thermocouple approximately 15 times per second (0.068 seconds per sample).

### DATA REDUCTION

The reduction of thin-skin thermocouple data normally involves only the calorimetric heat balance, which, in coefficient form is

$$H(TO) = wbc_p \frac{DTWDT}{TO-TW} \quad (1)$$

Radiation and conduction losses are neglected in this heat balance, and data reduction simply requires evaluation of DTWDT from the temperature-time data and determination of model material properties. For the present tests, radiation effects were negligible; however, conduction effects were potentially significant in several regions of the model. To permit identification of these regions and improve evaluation of the data, the following procedure was used.

Separation of variables and integration of Eq. (1) assuming constant  $w$ ,  $b$ ,  $c_p$ , and  $TO$  yields

$$\frac{H(TO)}{wbc_p} (t - t_1) = \ln \frac{TO-TW_1}{TO-TW} \quad (2)$$

Since  $H(TO)/wbc_p$  is a constant, plotting  $\ln [(TO-TW_1)/(TO-TW)]$  versus time will give a straight line if conduction is negligible. Thus, deviations from a straight line can be interpreted as conduction effects.

The data were evaluated in this manner and, generally, a reasonably linear portion of the curve could be found for all thermocouples. A linear

# DATA REDUCTION (Continued)

least-squares curve fit of  $\ln|(T_0 - T_{W_i})/(T_0 - T_W)|$  versus time was applied to the data. In Tunnel A the data reduction time was delayed for all thermocouples that were influenced by the tank induced shock until they had cleared this region. The data reduction time for Tunnel B was typically started at centerline. However, the data for Runs 5-239 were reduced starting 0.4 seconds after centerline to obtain a linear portion of the curve. The curve fit extended for a time span which was a function of the heating rate, as shown on the following list.

<u>Range</u>	<u>Number of Points</u>	<u>Time Span, sec.</u>
DTWDT > 32	5	0.27
16 < DTWDT $\leq$ 32	7	0.41
8 < DTWDT $\leq$ 16	9	0.54
4 < DTWDT $\leq$ 8	13	0.82
2 < DTWDT $\leq$ 4	17	1.09
1 < DTWDT $\leq$ 2	25	1.63
DTWDT $\leq$ 1	41	2.72

In general, the time spans given above were adequate to keep the evaluation of the right-hand side of Eq. (2) within the linear region. The value of  $c_p$  was not constant, as assumed, and the relation

$$c_p = 0.0797 + (5.556 \times 10^{-5}) TW, \text{ (17-4 PH stainless steel)} \quad (3)$$

was used with the computed value of TW at the midpoint of the curve fit. The maximum variation of  $c_p$  over any curve fit was less than 1.5 percent.

## DATA REDUCTION (Continued)

Thus, the assumption of constant  $c_p$  was reasonable. The value of density used for the 17-4 PH stainless steel skin was,  $w = 490 \text{ lbm/ft}^3$ , and the skin thickness,  $b$ , for each thermocouple is listed in Tables V, VI and VII. The four thermocouples (T/C No. 428, 429, 430, and 431) on the base of the 60-Ø model, see Figure 7i, were attached to 15-5 PH stainless steel. The value of density for the 15-5 PH stainless steel was  $490.75 \text{ lbm/ft}^3$ , and the value of  $c_p$  was

$$c_p = 0.0645 + (5.8 \times 10^{-6}) \text{ TW, Btu/lbm-}^\circ\text{R.} \quad (4)$$

The heat-transfer coefficient calculated from Eq. 2 was normalized using the Fay-Riddell stagnation point coefficient,  $H_{REF}$ , based on a nose radius of 1.0 ft full scale (see Remarks section).

In addition to computing heat-transfer coefficient using  $T_0$  as the assumed adiabatic wall temperature,  $T_{AW}$ , coefficients were computed using an assumed  $T_{AW}$  of  $0.95 T_0$  and a computed value of  $R T_0$  for the data in Tunnel A and  $0.9 T_0$  and  $R T_0$  for the data in Tunnel B. The value of  $R$  is defined as  $T_{AW}/T_0$ . The value of  $R$  was computed by the following equation supplied by Rockwell International (Reference 5).

$$k = a_1 + (a_2)(\sin(\alpha + \epsilon))^{a_3} \quad (5)$$

where  $\alpha$  is the model angle of attack and  $\epsilon$  is the local model surface deflection angle at a selected thermocouple location. The values of  $a_1$ ,  $a_2$ , and  $a_3$  for each Mach number are:

# DATA REDUCTION (Concluded)

<u>MACH NO.</u>	<u>a<sub>1</sub></u>	<u>a<sub>2</sub></u>	<u>a<sub>3</sub></u>
3.0	0.9345	0.1004	2.165
4.0	0.922	0.1004	1.965
8.0	0.867	0.133	1.55

The local model surface angles,  $\epsilon$ , for the appropriate thermocouples used in this test on the 60-Ø model are presented in Table IX. The local surface angles on the 83-Ø model are presented in Table X. For those thermocouples where  $\epsilon$  is not given, an R value of 0.95 was used for Mach numbers 3 and 4 and a value of 0.9 was used for Mach 8.

The method used to calculate the analytical temperature ratio, R, has been applied to all the tabulated data. However, in regions of separated flow or complex interaction, the basic assumptions no longer apply, and the computed values of R should be used with care.

The use of three assumed values of TAW provides an indication of the sensitivity of the heat-transfer coefficients to the value of TAW assumed. As can be noted in the tabulated data, there are large percentage differences in the values of the heat-transfer coefficients calculated from the three assumed values of TAW. Therefore, if the data are to be used for flight predictions, the value selected for TAW/T<sub>0</sub> is obviously very important.

Equations and methods documented in this section and used to reduce the resulting data from this test series were extracted directly from Reference 7.

## DISCUSSION OF RESULTS

The results of this test series, OH-84B, OH-105, and IH-102, were normalized heat transfer coefficients evaluated at the three assumed values of adiabatic wall temperature, TAW, for selected thermocouple locations on the 56-0, 60-0, and 83-0 models of the Space Shuttle orbiter. Data quality was determined by two factors: (1) the linear least squares curve fit of the log ratio versus time (see Data Reduction) and (2) comparison with previous data. Data quality for Tests OH-84B and OH-105 in Tunnel B were judged to be very good. Representative data from the lower centerline of the 60-0 model for Mach number 8 in Tunnel B are presented in Figure 12. The figure also shows data from a previous test of the same model which compares very well with the present data. Data quality for Test IH-102 in Tunnel A was not nearly as good as data from Tunnel B. The log ratio plots indicated that the thermocouples were strongly influenced by shocks emanating from the model installation tank and fairing doors as the model traversed forward on centerline. For runs where sideslip angles were required, data from thermocouples oriented toward the top of the test section would be significantly different than data from the same thermocouples oriented toward the bottom of the test section where the model installation tank was. In some cases where a pure sideslip angle was required, runs were repeated to orient the thermocouple toward the top of the test section. Therefore, although the Tunnel A data was completely reviewed at the facility before the final results were published, caution is required when using the data.

## DISCUSSION OF RESULTS (Continued)

Two types of heat transfer data resulted from this test series, tabulated and plotted. Tabulated data are presented in the Appendix; ØH84B in Vol. 1-4; ØH105 in Vol. 5 and IH102 in Vol. 6. The plotted data are data received by Rockwell while on-site. These data are not included in this report but Table XI delineates those thermocouples selected from each constant set to be plotted. The three NASA tests completed during this program were intermingled for running efficiency and are reported in this document as a group. The data presented in the Appendix are listed in consecutive order of the test data sets as outlined in Table II. The following will help separate the data by NASA test number and by model number.

<u>Runs</u>	<u>NASA Test No.</u>	<u>Model No.</u>	<u>Thermocouple Constant Sets</u>
5-203	OH-84B	60-0 (Base Sting)	111, 122, 133
204-239	OH-105	60-0	711, 722, 733
240-372	AFFDL*	60-0	-
373-385	OH-105	60-0	811
386-414	IH-102	56-0	311
415-443	OH-105	83-0	911, 922
444-555	IH-102	60-0	511, 522, 533
556-575	IH-102	83-0	411, 422
577-768	OH-84B	60-0 (Offset Sting)	211, 222

\*These tests were completed for the Air Force Flight Dynamics Laboratory using Model 60-0; data are not included in the Appendix.

## DISCUSSION OF RESULTS (Continued)

### DATA UNCERTAINTY

An evaluation of the influence of random measurement errors is presented in this section to provide a partial measure of the uncertainty of the final test results presented in this report. Although evaluation of the systematic measurement error (bias) is not included, it should be noted that the instrumentation accuracy values (see Instrumentation) used in this evaluation represent a total uncertainty combination of both systematic and two-sigma random error contributions.

Accuracy of the basic tunnel parameters P0 and T0 and the two-sigma deviation in Mach number determined from test section flow calibrations were used to estimate uncertainties in the other freestream properties, using the Taylor series method of error propagation; i.e.,

$$(\Delta F)^2 = \frac{\partial F}{\partial X_1} \Delta X_1^2 + \frac{\partial F}{\partial X_2} \Delta X_2^2 + \frac{\partial F}{\partial X_3} \Delta X_3^2 + \dots + \frac{\partial F}{\partial X_n} \Delta X_n^2$$

where  $\Delta F$  is the absolute uncertainty in the dependent parameter  $F = f(X_1, X_2, X_3 \dots X_n)$ ;  $X_1, X_2, X_3 \dots X_n$  are the independent measurements; and  $\Delta X_1, \Delta X_2, \Delta X_3 \dots \Delta X_n$  are the errors in the independent measurements.



# DISCUSSION OF RESULTS (Concluded)

MACH NO.	Uncertainty ( $\pm$ ), percent					
	MACH NO.	PO	TO	P-INF	Q-INF	RE/FT
3.01	0.6	0.2	0.5	2.6	1.4	1.2
4.01	0.4	0.2	0.5	2.4	1.5	1.2
4.02	0.4	0.2	0.5	2.4	1.5	1.2
7.90	0.4	0.27	0.4	2.5	1.7	1.2
7.94	0.4	0.25	0.4	2.5	1.7	1.2
7.98	0.3	0.25	0.4	1.6	1.2	0.9
7.99	0.3	0.25	0.4	1.6	1.2	0.9
8.00	0.3	0.25	0.4	1.6	1.2	0.9

## Reduced Data

Estimated uncertainties for the individual terms in Eq. (2) were used in the Taylor series method of error propagation to obtain uncertainty values of heat-transfer coefficient as represented typically by the ranges listed below:

Range of $H(TO)$	Uncertainty ( $\pm$ ), percent	
	Tunnel A	Tunnel B
$10^{-4}$	15	10
$10^{-3}$	13	7
$10^{-2}$	10	5

These values assume that the uncertainty for the density, skin thickness, and specific heat of the thin skin material, as supplied by Rockwell are within  $\pm 1$ ,  $\pm 3$ , and  $\pm 5$  percent, respectively.

## REFERENCES

1. W. F. Braddock, "Information for Testing the 0.0175-Scale Thin-Skin Thermocouple Model 60-0 in the AEDC VKF "B" Hypersonic Wind Tunnel, Test OH-84B," STS79-0248, May 11, 1979.
2. W. F. Braddock, "Information for Thin-Skin Heat Transfer Tests of Space Shuttle Orbiter Models 60-0 (0.0175-Scale) and 83-0 (0.04-Scale Forebody) in the AEDC VKF "B" Hypersonic Wind Tunnel, Test OH-105," STS79-0249, April 30, 1979.
3. W. F. Braddock, "Information for Thin Skin Heat Transfer Tests of the Space Shuttle 0.0175-Scale Launch Vehicle Model 56-0/60-TS, 0.04-Scale Orbiter Forebody Model 83-0, 0.0175-Scale Orbiter Model 60-0, and 0.0175-Scale Launch Vehicle Model 60-OTS in the AEDC VKF "A" Supersonic Wind Tunnel, Text IH-102", STS79-0239, April 30, 1979.
4. Test Facilities Handbook (Tenth Edition), "Von Karman Gas Dynamics Facility, Vol. 3," Arnold Engineering Development Center, May 1974.
5. Dr. Serge-Albert Waiter, "Determination of Temperature Efficiency  $R = TAW/TO$  in Low Temperature Wind Tunnels (An Engineering Attempt)," NA-77-299, Prepared for the 47th Semi-Annual Meeting of the Supersonic Tunnel Association, April 1977.
6. J. A. Fay and F. R. Riddell, "Theory of Stagnation Point Heat Transfer in Dissociated Air;" Journal of the Aeronautical Sciences, Vol. 25, No. 2, February 1958.
7. K. W. Nutt, G. L. Dommerman, and A. C. Mansfield, "Test Results from the NASA/Rockwell International Space Shuttle Orbiter Tests (OH-84B, IH-102, and OH-105)," AEDC-TSR-79-V42, August 1979.

TABLE I. TEST CONDITIONS

Mach Number	Stagnation Pressure	Stagnation Temperature	Dynamic Pressure	Static Pressure	Reynolds Number
<u>MACH NO.</u>	<u>PO, psia</u>	<u>TO, °R</u>	<u>Q-INF, psia</u>	<u>P-INF, psia</u>	<u>RE/FT x 10<sup>-6</sup></u>
3.01	10	710	1.7	0.27	1.0
3.01	34		5.8	0.91	3.5
3.01	37		6.3	0.99	3.8
4.01	17		1.2	0.11	1.0
4.02	33		2.4	0.21	2.0
4.02	58		4.2	0.37	3.5
4.02	66	710	4.8	0.42	4.0
7.9	100	1250	0.5	0.01	0.5
7.94	205	1260	1.0	0.02	1.0
7.98	435	1300	2.0	0.05	2.0
7.99	670	1320	3.1	0.07	3.0
8.0	850	1350	3.9	0.09	3.7

TABLE II.

SHEET 1 of 7

JEV

TEST: $\phi$ H84B (V41B-67)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE 6/20/79					
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS										REYNOLDS NUMBER $\times 10^6$ / FT					
		$\alpha$	$\beta$	$\delta_c$	$\delta_{RE}$	$\delta_{SB}$	M	CONC CODE	SW. POS.	COR. SET		0.5	1.0	2.0	3.0	3.7	
** R4U*01	60- $\phi$	25	0	0	0	49	8.0	10	3	133						5	
		25	0			49			1	111			9	8	7	6	
	02	30	-4			0			1	111				155	116	129	
									2	122					117	130	
									3	133				157	118	131	
	03		-2						1	111				152	113	126	
									2	122				153	114	127	
									3	133				154	115	128	
	04		-1						1	111				149	110	122	
									2	122				150	111	123	
									3	133				151	112	125	
	06		0						1	111		10		47	76	119	
									2	122		11		48	77	120	
									3	133		12		49	78	121	
	07								3	133				148			
	08		+1						1	111				50			
									2	122				51			
									3	133				52			
$\alpha$ OR $\beta$ SCHEDULES																	

LIST RUN NUMBERS

\*\* In the tabulated data, thermocouples numbered ###A appear as 2### and ###C appear as 1###.

TABLE II (Continued)

SHEET 2 of 7

JEV

TEST:  $\phi$ H84B (V41B-67)

## DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 6/20/79

DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS								REYNOLDS NUMBER $\times 10^6$ / FT							
		$\alpha$	$\beta$	$\delta_e$	$\delta_{AF}$	$\delta_{SB}$	M	CONK CODE	SW. POS.	CON. SET	0.5	1.0	2.0	3.0	3.7		
R4U*09	60- $\phi$	30	+2	0	0	0	8.0	10	1	111			53				
	10								1	111			54				
									2	122			55				
									3	133			56				
	11	35	-4						1	111			164	107	141		
									2	122			165	108	142		
									3	133			166	109	143		
	12		-2						1	111			161	104	138		
									2	122			162	105	139		
									3	133			163	106	140		
	13		-1						1	111			158	101	135		
									2	122			159	102	136		
									3	133			160	103	137		
	14		0						1	111	13		60	79	132		
									2	122	14		61	80	133		
									3	133	15		62	81	134		

11ST RUN NUMBERS

 $\alpha$  OR  $\beta$   
SCHEDULES

JEV

**\*\* NO DATA AVAILABLE**

TABLE II (Continued)

SHEET 4 of 7

JEV

TEST:  $\phi H84B$  (V41B-67)

## DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 6/20/79

DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS										REYNOLDS NUMBER $\times 10^6$ / FT					
		$\alpha$	$\beta$	$\delta_e$	$\delta_{RF}$	$\delta_{SB}$	M	CONK CODE	SW. POS.	$P_{1-2}$		0.5	1.0	2.0	3.0	3.7	
R4U* 24	60- $\phi$	40	0	0	0	0	8.0	10	3	133					87		
25			+1						1	111		20	35	70			
									2	122		21	36	71			
									3	133		22	37	72			
26			+2						1	111		23	38	67			
									2	122		24	39	68			
									3	133		25	40	69			
27			+4						1	111		26	41	63			
									2	122		27	42	66			
									3	133		28	43	65			
28			+10						1	111		29	44	57			
									2	122		30	45	58			
									3	133		31	46	59			
29			0	-15	-12.5			20	1	211		717	715	709	707		
					-12.5				2	222		718	716	710	708		
30					0				1	211		719	713	711	705		
					0				2	222		720	714	712	706		

TEST RUN NUMBERS

 $\alpha$  OR  $\beta$   
SCHEDULES

TABLE II (Continued)

SHEET 5 of 7

JEV

TEST: $\phi$ H84B (V41B-67)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 6/20/79						
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS										REYNOLDS NUMBER $\times 10^6$ / FT						
		$\alpha$	$\beta$	$\delta_c$	$\delta_{RF}$	$\delta_{SB}$	M	CONK CODE	SW. POS.	CON. #		0.5	1.0	2.0	3.0	3.7		
R4U* 31	60 - $\phi$	10	0	-12.5	-12.5	0	8.0	20	1	211		725	739	737	727			
									2	222		726	740	738	728			
32					-5.0				1	211		723	741	735	729			
									2	222		724	742	736	730			
33					0.0				1	211		721	743	733	731			
									2	222		722	744	734	732			
34				-5	-12.5				1	211		633	659	647	649			
									2	222		634	660	648	650			
35					-5.0				1	211		635	657	645	655			
									2	222		636	658	646	656			
36					0				1	211		637	663	643	653			
									2	222		638	664	644	654			
37					5.0				1	211		639	661	641	651			
									2	222		640	662	642	652			
38				0	-12.5				1	211		631	605	603	581			
									2	222		632	606	604	582			
39					-5.0				1	211		621	615	593	579			
									2	222		622	616	594	580			

$\alpha$  OR  $\beta$

SCHEDULES

LIST RUN NUMBERS



TABLE II (Continued)

SHEET 6 of 7

JEV

TEST:  $\phi$ H84B (V41B-67)

## DATA SET/RUN NUMBER COLLATION SUMMARY

DATE 6/20/79

DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS									REYNOLDS NUMBER $\times 10^6$ / FT							
		$\alpha$	$\beta$	$\delta_c$	$\delta_{RF}$	$\delta_{SB}$	M	CONK CODE	SW. POS.	CONV. FACT	0.5	1.0	2.0	3.0	3.7			
R4U*40	60- $\phi$	40	0	0	0	0	8.0	20	1	211	623	613	595	577				
									2	222	624	614	596	578				
41					5				1	211	625	611	597	583				
									2	222	626	612	598	584				
42					8				1	211	619	617	591	589				
									2	222	620	618	592	590				
43					15				1	211	627	609	599	585				
									2	222	628	610	600	586				
44					23.5				1	211	629	607	601	587				
									2	222	630	608	602	588				
45				5	-5				1	211	681	667	687	701				
									2	222	682	668	688	702				
46					0				1	211	679	665	689	699				
									2	222	680	666	690	700				
47					8				1	211	683	669	685	703				
									2	222	684	670	686	704				
48					15				1	211	675	673	691	697				
									2	222	676	674	692	698				

TEST RUN NUMBERS

 $\alpha$  OR  $\beta$   
SCHEDULES

*JEV*

TEST : $\phi$ H84B (V41B-67)		DATA SET/RUN NUMBER COLLATION SUMMARY									DATE 6/20/79					
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS									REYNOLDS NUMBER $\times 10^6$ / FT					
		$\alpha$	$\beta$	$\delta_c$	$\delta_{RF}$	$\delta_{SB}$	M	CONK CODE	SW. POS.	CON. SET	0.5	1.0	2.0	3.0	3.7	
R4U*49	60 - $\phi$	40	0	5	23.5	0	8.0	20	1	211	677	671	693	695		
				5					2	222	678	672	694	696		
50				7.5	0				1	211	767	757	755	745		
									2	222	768	758	756	746		
51					15				1	211	765	759	753	747		
									2	222	766	760	754	748		
52					23.5				1	211	763	761	751	749		
									2	222	764	762	752	750		
</																

TABLE II (Continued)

SHEET 1 of 2 JEV

TEST: $\phi$ H105 (V41B-67)		DATA SET/RUN NUMBER COLLATION SUMMARY								DATE: 6/20/79					
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS								REYNOLDS NUMBER $\times 10^6$ / FT					
		$\alpha$	$\beta$	$\delta_e$	$\delta_{RF}$	$\delta_{SB}$	M	CONK CODE	SW. POS.	CON SET	0.5	1.0	2.0	3.0	3.7
R4V#01	60- $\phi$	0	0	0	0	0	80	70	1	711			204		216 228
									2	722			205		217 229
									3	733			206		218 230
									4	811			382		378 373
									4	811					377
02									1	711			207		219 231
03		10							2	722			208		220 232
									3	733			209		221 233
									4	811			383		379 374
04		15							1	711			210		222 237
									2	722			211		223 238
									3	733			212		224 239
									4	811			384		380 375
05		20							1	711			213		225 234
									2	722			215		226 235
									3	733			214		227 236
									4	811			385		381 376

39

TEST RUN NUMBERS

$\alpha$  OR  $\beta$  SCHEDULES

JEV

DATE 6/20/79

1131 NON NUMBERS

\_\_\_\_\_

TABLE II (Continued)

SHEET 1 of 7

JCV

TEST: IH102 (V41B-67)

## DATA SET/RUN NUMBER COLLATION SUMMARY

DATE 6/20/79

DATA SET IDENTIFIER	CORRUPTION	PARAMETERS									REYNOLDS NUMBER $\times 10^6$ / FT						
		$\alpha$	$\beta$	$\delta_e$	$\delta_{RF}$	$\delta_{S2}$	M	CONK CODE	SW P. 2	$\epsilon_{11}$		0.5	1.0	2.0	3.0	3.5	4.0
R41W*01	56 - $\phi$	0	-15	0	0	0	3.0	31	1	311							414
02		0	-15				4.0	31									413
03	56- $\phi$ / 60-TS	-5	-11				3.0	30					389				394
04		-5	-6														393
05		-5	0										387				392
06		0	-11										388				395
07		0	-6														396
08		0	-3														397
09		0	0										386				391
10		0	0										390				
11		5	0														398
12		-5	-11				4.0						402			411	
13			-6														405
14			0										400				404
15		0	-11										401				409
16			-6														408
17			-3														407
18			0										399				403
19			0														410
20		5	0														406

LIST OF UN NUMBERS

LIST RUN NUMBERS

$\alpha$  OR  $\beta$   
SCHEDULES

TABLE II (Continued)

SHEET 2 of 7

JEV

TEST: IH102 (V41B-67)

## DATA SET/RUN NUMBER COLLATION SUMMARY

DATE 6/20/79

DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS									REYNOLDS NUMBER $\times 10^6$ / FT						
		$\alpha$	$\beta$	$\delta_c$	$\delta_{RE}$	$\delta_{SB}$	M	CONN. CODE	SW. POS.	$C_{DA}$	0.5	1.0	2.0	3.0	3.5	4.0	
R4W*21	60 - $\phi$	-40	0	0	0	0	3.0	51	1	511					546		
									2	522					547		
									3	533					548		
22		-15	0					50	1	511					528		
									2	522					529		
									3	533					530		
23		0	-15						1	511					525		
									2	522					526		
									3	533					527		
24			0						1	511		531			522		
									2	522		532			523		
									3	533		533			524		
25		-40	0				4.0	51	1	511			553		550		
									2	522			554		551		
									3	533			555		552		
26		-30	0						1	511					549		
27		-15	0					50	1	511					540		
									2	522					541		
									3	533					542		

$\alpha$  OR  $\beta$

SCHEDULES

$\alpha$  OR  $\beta$   
SCHEDULES

TABLE II (Continued)

SHEET 3 of 7

JFV

TEST: IH102 (V41B-67)

## DATA SET/RUN NUMBER COLLATION SUMMARY

DATE 6/20/79

DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS									REYNOLDS NUMBER $\times 10^6$ / FT						
		$\alpha$	$\beta$	$\delta_e$	$\delta_{RE}$	$\delta_{SB}$	M	CONC CODE	SW. POS.	Corr $\pm$	0.5	1.0	2.0	3.0	3.5	4.0	
R4W*28	60 - $\phi$	0	-15	0	0	0	4.0	50	1	511					537		
									2	522					538		
									3	533					539		
29		0							1	511		543			534		
									2	522		544			535		
									3	533		545			536		
30	60 - $\phi$ TS	-5	-11				3.0	60	1	511					489		
									2	522					490		
									3	533					491		
31		-6							1	511		500			482		
									2	522		501			483		
									3	533		502			484		
32		0							1	511		497			471		
									2	522		498			472		
									3	533		499			473		
33		0	-11						1	511					488		
									2	522					486		
									3	533					487		

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LIST RUN NUMBERS

$\alpha$  OR  $\beta$   
SCHEDULES





TABLE II (Continued)

SHEET 5 of 7

JEV

TEST: IH102 (V41B-67)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE 6/20/79						
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS										REYNOLDS NUMBER $\times 10^6$ / FT						
		$\alpha$	$\beta$	$\delta_c$	$\delta_{RF}$	$\delta_{SB}$	M	CONK COND	SW. POS	CON SET		0.5	1.0	2.0	3.0	3.5	4.0	
R4W*42	60- $\phi$ TS	-5	-6	0	0	0	4.0	60	1	511			519			459		
									2	522			520			460		
									3	533			521			461		
43			0						1	511			514			450		
									2	522			517			451		
									3	533			518			452		
45		0	-11						1	511						507		
									2	522						503		
									3	533						504		
																506		
47			-6						1	511								
									2	522						457		
									3	533						458		
																505		
49			-3						1	511						505		
									2	522						454		
									3	533						455		
$\alpha$ OR $\beta$ _____ SCHEDULES _____																		

LIST RUN NUMBERS

TABLE II (Continued)

SHEET 6 of 7

JEV

TEST: IH102 (V41B-67)

DATA SET, RUN NUMBER COLLATION SUMMARY

DATE 6/20/79

DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS										REYNOLDS NUMBER $\times 10^6$ / FT						
		$\alpha$	$\beta$	$\delta_c$	$\delta_{RF}$	$\delta_{SR}$	M	CONC. CONC.	SW. POS.	CONC. CONC.		0.5	1.0	2.0	3.0	3.5	4.0	
R4W*50	60- $\phi$ TS	0	0	0	0	0	4.0	60	1	511			512			444		
									2	522			515			445		
									3	533			516			446		
		5	0						1	511						447		
									2	522						448		
									3	533						449		
	83- $\phi$	-5	0				3.0	40	1	411			566			558		
									2	422			567			559		
46	53		6						1	411						562		
									2	422						563		
	54	0	0						1	411			564			556		
									2	422			565			557		
	55		6						1	411						560		
									2	422						561		
	56	-5	0				4.0		1	411						570		
									2	422						571		
	57		6						1	411						574		
									2	422						575		

$\alpha$  OR  $\beta$

SCHEDULES

LIST RUN NUMBERS

$\alpha$  OR  $\beta$   
SCHEDULES

REV

DATE 6/20/77

### ORDER

\_\_\_\_\_

\_\_\_\_\_

TABLE IIIA - MODEL 56-0 ORBITER DATA

MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B<sub>62</sub>

GENERAL DESCRIPTION : Configuration 140C orbiter fuselage, MCR 200-R4

Similar to 140A/B fuselage except aft body revised and improved  
midbody-wing-boot fairing, X<sub>o</sub> = 940 to X<sub>o</sub> = 1040.

MODEL SCALE: 0.0175

DRAWING NUMBER; VL70-000140C, -000202C, -000205A  
VL70-000200B, -000203

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (IML: FWD Sta X <sub>o</sub> =238), In.	1290.3	22.58
Length (OML: Fwd Sta X <sub>o</sub> =235), In.	1293.3	22.63
Max Width (At X <sub>o</sub> = 1528.3), In.	264.0	4.62
Max Depth (At X <sub>o</sub> = 1464), In.	250.0	4.38
Fineness Ratio	4.899	4.899
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	340.885	0.104
Planform		
Wetted		
Base		

TABLE IIIA - (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C<sub>12</sub>GENERAL DESCRIPTION : Configuration 140C orbiter canopy. Vehicle  
cabin No. 31 updated to MCR 200-R4 Used with fuselage B<sub>62</sub>.MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000140C, -000202B, -000204

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_o = 434.643$ to $578$ ), In.	<u>143.357</u>	<u>2.508</u>
Max Width (At $X_o = 513.127$ ), In.	<u>152.412</u>	<u>2.667</u>
Max Depth ( $Z_o = 501$ to $449.39$ ), In.	<u>51.61</u>	<u>0.903</u>
Fineness Ratio	<u>                    </u>	<u>                    </u>
Area	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>

TABLE IIIA (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT: ELEVON - E<sub>52</sub>GENERAL DESCRIPTION: Elevon for configuration 140C. Hingeline at  $X_o = 1387$ ,  
elevon split line  $X_w = 312.5$ , 6.0", beveled edges, and centerbodies.MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000140C, -006089, -006092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>210.0</u>	<u>0.064</u>
Span (equivalent) - In.	<u>349.2</u>	<u>6.111</u>
Inb'd equivalent chord- In.	<u>118.0</u>	<u>2.065</u>
Outb'd equivalent chord	<u>55.19</u>	<u>0.966</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.0</u>	<u>0.0</u>
Tailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.0</u>	<u>0.0</u>
Area Moment (Product of area & $\bar{c}$ ) (Normal to hinge line) Ft <sup>3</sup>	<u>1587.25</u>	<u>0.008</u>
Mean Aerodynamic Chord, In.	<u>90.7</u>	<u>1.587</u>
Hingeline dihedral (origin at $Z_o = 261.3509$ ), deg.	<u>5.229</u>	<u>5.229</u>

TABLE IIIA (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY FLAP - F<sub>10</sub>GENERAL DESCRIPTION : Configuration 140C body flap. Hingeline located  
at X<sub>o</sub> = 1532, Z<sub>o</sub> = 287.MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000140C, -355114

DIMENSIONS:	FULL SCALE	MODEL SCALE
Length (X <sub>o</sub> = 1525.5 to X <sub>o</sub> = 1613), In.	87.50	1.531
Max Width (At L. E., X <sub>o</sub> = 1525.5), In.	256.00	4.480
Max Depth (X <sub>o</sub> = 1532), In.	19.798	0.346
Fineness Ratio		
Area - Ft <sup>2</sup>		
Max. Cross-Sectional (At H. L.)	35.196	0.011
Planform	135.00	0.041
Wetted		
Base (X <sub>o</sub> = 1613)	4.89	0.0015

## TABLE IIIA (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : OMS POD - M<sub>16</sub>GENERAL DESCRIPTION : Configuration 140C orbiter OMS Pod - short pod.MODEL SCALE: 0.0175DRAWING NUMBER : VL70-008401, -008410

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (O <sub>2</sub> S Fwd Sta X <sub>o</sub> = 1310.5), In. 258.50	<u>258.50</u>	<u>4.524</u>
Max Width (1/4t X <sub>o</sub> = 1511), In.	<u>136.8</u>	<u>2.394</u>
Max Depth (1/4t X <sub>o</sub> = 1511), In. -	<u>74.70</u>	<u>1.307</u>
Fineness Ratio	<u>2.484</u>	<u>2.484</u>
Area = Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>58.864</u>	<u>0.018</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>



TABLE IIIA (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT: VERTICAL - V30

GENERAL DESCRIPTION: Slab sided vertical tail with extended span

MODEL SCALE: 0.0175

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo) ÷ Ft <sup>2</sup>	<u>442.299</u>	<u>0.135</u>
Planform		
Span - In.	<u>358.57</u>	<u>6.275</u>
Aspect Ratio	<u>2.019</u>	<u>2.019</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.323</u>	<u>0.323</u>
Sweep-Back Angles, Degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
0.25 Element Line	<u>41.13</u>	<u>41.13</u>
Chords:		
Roc (Theo) WP	<u>268.50</u>	<u>4.699</u>
Tic (Theo) WP	<u>86.75</u>	<u>1.513</u>
MAC	<u>193.12</u>	<u>3.390</u>
Fus. Sta. of .25 MAC	<u>1474.87</u>	<u>25.201</u>
W.P. of .25 MAC	<u>643.71</u>	<u>11.352</u>
B.L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>11.75</u>	<u>11.75</u>
Trailing Wedge Angle - Deg	<u>0.0</u>	<u>0.0</u>
Leading Edge Radius	<u>0.0</u>	<u>0.0</u>
Void Area	<u>0.0</u>	<u>0.0</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

TABLE IIIA (Concluded)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT: WING-W<sub>137</sub>

GENERAL DESCRIPTION: Configuration 140C orbiter wing, MCR 200-R4. Similar to 140A/B wing W<sub>116</sub> but with refinements: improved wing-boot-midbody fairing (X<sub>0</sub> = 940 to X<sub>0</sub> = 1040). Elevon split line relocated from Y<sub>0</sub> = 281 to Y<sub>0</sub> = 312.5).

MODEL SCALE: 0.0175

TEST NO.

DWG. NO. VL70-000140C, -000200I

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo.)  $\text{Ft}^2$

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATA

Area (Theo)  $\text{Ft}^2$

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip  $1.00 \frac{b}{2}$

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root  $\frac{b}{2}$

Tip  $\frac{b}{2}$

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area  $\text{Ft}^2$

Leading Edge Intersects Fus M. L. @ Sta

Leading Edge Intersects Wing @ Sta

TABLE III-B MODEL 60-Ø ORBITER

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B<sub>62</sub>GENERAL DESCRIPTION : Configuration 140C orbiter fuselage. MCR 200-R4Similar to 140A/B fuselage except aft body revised and improved  
midbody-wing-boot fairing,  $X_0 = 940$  to  $X_0 = 1040$ .MODEL SCALE: 0.0175DRAWING NUMBER : VL70-000140C, -000202C, -000205A  
VL70-000200B, -000203

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (IML: FWD Sta $X_0=238$ ), In.	1290.3	22.58
Length (OML: Fwd Sta $X_0=235$ ), In.	1293.3	22.63
Max Width (At $X_0 = 1528.3$ ), In.	264.0	4.62
Max Depth (At $X_0 = 1464$ ), In.	250.0	4.38
Fineness Ratio	4.899	4.899
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	340.885	0.104
Planform		
Wetted		
Base		

TABLE III-B (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C<sub>12</sub>GENERAL DESCRIPTION : Configuration 140C orbiter canopy. Vehicle  
cabin No. 31 updated to MCR 200-R4. Used with fuselage B<sub>62</sub>.MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000140C, -000202B, -000204

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_o = 434.643$ to $578$ ), In.	<u>143.357</u>	<u>2.508</u>
Max Width (At $X_o = 513.127$ ), In.	<u>152.412</u>	<u>2.667</u>
Max Depth ( $Z_o = 501$ to $449.39$ ), In.	<u>51.61</u>	<u>0.903</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III-B (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT: ELEVON - E<sub>52</sub>GENERAL DESCRIPTION: Elevon for configuration 140C. Hingeline at X<sub>o</sub> = 1387, elevon split line X<sub>w</sub> = 312.5, 6.0", beveled edges, and centerbodies.MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000140C, -006089, -006092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>210.0</u>	<u>0.064</u>
Span (equivalent) - In.	<u>349.2</u>	<u>6.111</u>
Inb'd equivalent chord- In.	<u>118.0</u>	<u>2.065</u>
Outb'd equivalent chord	<u>55.19</u>	<u>0.966</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.0</u>	<u>0.0</u>
Tailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.0</u>	<u>0.0</u>
Area Moment (Product of area & $\bar{c}$ ) (normal to hingeline) Ft <sup>3</sup>	<u>1587.25</u>	<u>0.008</u>
Mean Aerodynamic Chord, In.	<u>90.7</u>	<u>1.587</u>
Hingeline dihedral (origin at Z <sub>o</sub> = 261.3509), deg.	<u>5.229</u>	<u>5.229</u>

TABLE III-B (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY FLAP - F<sub>10</sub>GENERAL DESCRIPTION : Configuration 140C body flap. Hingeline located  
at X<sub>o</sub> = 1532, Z<sub>o</sub> = 287.MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000140C, -355114

DIMENSIONS:	FULL SCALE	MODEL SCALE
Length (X <sub>o</sub> = 1525.5 to X <sub>o</sub> = 1613), In.	87.50	1.531
Max Width (At L. E., X <sub>o</sub> = 1525.5), In.	256.00	4.480
Max Depth (X <sub>o</sub> = 1532), In.	19.798	0.346
Fineness Ratio		
Area - Ft <sup>2</sup>		
Max. Cross-Sectional (At H. L.)	35.196	0.011
Planform	135.00	0.041
Wetted		
Base (X <sub>o</sub> = 1613)	4.89	0.0015

TABLE III-B (Continued)

MODEL DIMENSIONAL DATA

MODEL COMPONENT : OMS POD - M<sub>16</sub>  
 GENERAL DESCRIPTION : Configuration 140C orbiter OMS Pod - short pod.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 MODEL SCALE : 0.0175  
 DRAWING NUMBER : VL70-008401, -008410

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (O/S Fwd Sta $X_0 = 1310.5$ ), In.	<u>258.50</u>	<u>4.524</u>
Max Width (At $X_0 = 1511$ ), In.	<u>136.8</u>	<u>2.394</u>
Max Depth (At $X_0 = 1511$ ), In.	<u>74.70</u>	<u>1.307</u>
Fineness Ratio	<u>2.484</u>	<u>2.484</u>
Area = Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>58.864</u>	<u>0.018</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III-B (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT: RUDDER - R<sub>18</sub>

GENERAL DESCRIPTION: The rudder is a secondary movable airfoil at the trailing edge of the vertical fin that imparts yaw forces. This dimensional data was calculated from the OML master dimensions.

MODEL SCALE: 0.0175DRAWING NUMBER: Vehicle 5 Configuration MCR 200, Rev. 7

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>97.84</u>	<u>0.030</u>
Span (equivalent) - In.	<u>198.614</u>	<u>3.476</u>
Inb'd equivalent chord - In.	<u>91.07</u>	<u>1.699</u>
Outb'd equivalent chord - In.	<u>50.80</u>	<u>0.889</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.833</u>	<u>34.833</u>
Tailing Edge	<u>26.249</u>	<u>26.249</u>
Hingeline	<u>34.833</u>	<u>34.833</u>
(Product of Area & $\bar{c}$ ),		
Area Moment (Normal to hingeline) Ft <sup>3</sup>	<u>593.889</u>	<u>0.032</u>
Mean Aerodynamic Chord, In.	<u>72.840</u>	<u>1.275</u>



TABLE III-B (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT: VERTICAL - V<sub>8</sub>GENERAL DESCRIPTION: Configuration 140C orbiter vertical tail (identical to configuration 140A/B vertical tail).MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000140C, -000146B

## DIMENSIONS:

FULL SCALEMODEL SCALE

## TOTAL DATA

Area (Theo) - Ft<sup>2</sup>

Planform

413.2530.127

Span (Theo) - In.

315.725.350

Aspect Ratio

1.6751.675

Rate of Taper

0.5070.507

Taper Ratio

0.4040.404

Sweep-Back Angles, Degrees.

Leading Edge

45.00045.000

Trailing Edge

26.2526.25

0.25 Element Line

41.1341.13

## Chords:

Root (Theo) %P

268.504.699

Tip (Theo) %P

108.471.898

MAC

199.813.497

Fus. Sta. of .25 MAC

1463.3525.609

W.P. of .25 MAC

635.5211.122

B.L. of .25 MAC

0.00.0

## Airfoil Section

Leading Wedge Angle - Deg.

10.0010.00

Trailing Wedge Angle - Deg.

14.9214.92

Leading Edge Radius

2.002.00

## Void Area

13.170.0040

## Blanketed Area

0.00.0

TABLE III-B (Concluded)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT: WING-W<sub>116</sub>

GENERAL DESCRIPTION: Configuration 5

NOTE: Identical to W<sub>114</sub> except airfoil thickness. Dihedral angle is along trailing edge of wing. Geometric twist = 0.

MODEL SCALE: 0.0175

TEST NO.

DWG. NO. VL70-000140A, -000200

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo.)  $\text{Ft}^2$

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATA

Area (Theo)  $\text{Ft}^2$

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip  $1.00 \frac{b}{2}$

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root  $\frac{b}{2}$

Tip  $\frac{b}{2}$

Data for (1) of (2) Sides

Leading Edge Cuff  
Planform Area  $\text{Ft}^2$

Leading Edge Intersects Fus M. L. @ Sta

Leading Edge Intersects Wing @ Sta

TABLE III-C MODEL 60-Ø TANK AND SRB'S.

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : EXTERNAL TANK - T<sub>38</sub>GENERAL DESCRIPTION : Spike nose configuration.MODEL SCALE: 0.0175DRAWING NUMBER : VC78-000002Z (ET DRAWING)  
VC72-000002Z (SHUTTLE CONFIG. DRAWING)

(Dimensions are to tank structural OML, TPS not included).

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>1850.525</u>	<u>32.384</u>
Max Width	<u>331.00</u>	<u>5.792</u>
Max Depth	<u></u>	<u></u>
Fineness Ratio	<u>5.687</u>	<u>5.687</u>
Area - Ft <sup>2</sup>	<u></u>	<u></u>
Max. Cross-Sectional	<u>594.678</u>	<u>0.1821</u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>

TABLE III-C (Concluded)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BOOSTER SOLID ROCKET MOTOR - S<sub>26</sub>

GENERAL DESCRIPTION : The BSRM is an external propulsion system which is jettisoned and recoverable after burnout. The BSRM's can be refurbished and reused after recovery.

MODEL SCALE: 0.0175

DRAWING NUMBER : SRB DRAWING - VC77-000002G, VC77-000003F  
SHUTTLE CONFIG. - VC72-000002F

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>1789.60</u>	<u>31.318</u>
Max Width tank dia., In.	<u>146.00</u>	<u>2.555</u>
Max Depth, aft shroud dia.; In.	<u>208.20</u>	<u>3.643</u>
Fineness Ratio	<u>8.596</u>	<u>8.596</u>
Area	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>
W.P. of BSRM centerline	<u>400.0</u>	
F.S. of BSRM nose	<u>743.0</u>	
B.P. of BSRM centerline	<u>250.5</u>	

TABLE III-D MODEL 83-Ø ORBITER

MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B<sub>60</sub>

GENERAL DESCRIPTION : 50% orbiter forebody, vehicle 140C.

NOTE: This body includes a small portion of the wing glove.

MODEL SCALE: 0.040

DRAWING NUMBER: VL70-000140C

DIMENSIONS :

FULL SCALE

MODEL SCALE

Length

645.15

25.80

Max Width

330.00

13.20

Max Depth

Fineness Ratio

Area

Max. Cross-Sectional

Planform

Wetted

Base

TABLE III-D (Concluded)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C<sub>10</sub>GENERAL DESCRIPTION : Configuration 4 canopy and windshield as used  
with B<sub>25</sub>, six glass panes in windshield.MODEL SCALE: 0.040DRAWING NUMBER : VL70-000140B, 140C, 202B

DIMENSIONS .	FULL SCALE	MODEL SCALE
Length ( $X_0 = 434.643$ to $670$ ), In.	<u>235.357</u>	<u>9.414</u>
Max Width	<u>          </u>	<u>          </u>
Max Depth (Glass, In.	<u>28.00</u>	<u>1.12</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>
Nose/windshield intersection, $X_0 =$	<u>434.643</u>	<u>17.386</u>

TABLE IV. CONFIGURATION CODES

<u>NASA TEST CODE</u>	<u>MODEL CONFIGURATION CODE</u>	<u>MODEL CONFIGURATION</u>	<u>TUNNEL</u>	<u>THERMOCOUPLE CONSTANT SETS</u>
	(See Figure 6)			
OH-84B	10	60-Ø BASE STING	B	111, 122, 133
OH-84B	20	60-Ø OFFSET STING	B	211, 222
IH-102	30	56-ØTS	A	311
IH-102	31	56-Ø	A	311
IH-102	40	83-Ø	A	411, 422
IH-102	50	60-Ø	A	511, 522, 533
IH-102	51	60-Ø	A	511, 522, 533
IH-102	60	60-ØTS	A	511, 522, 533
OH-105	70	60-Ø	B	711, 722, 733, 811
OH-105	80	83-Ø	B	911, 922

TABLE V. 60-Ø MODEL THERMOCOUPLE LOCATIONS

T/C No.	x/L	Full Scale			Model Scale			$\phi$	Skin Thickness	Mat'l	Remarks
		X <sub>0</sub>	Y <sub>0</sub>	Z <sub>0</sub>	X <sub>from nose</sub>	Y	Z <sub>from FRL</sub>				
1	0	235.0	0	-	0	0	-	0	.040	17-4	Bottom $\phi$
2	.005	241.47			.113				.032		
3	.01	247.93			.226				.033		
4	.02	260.87			.453				.040		
5	.03	273.80			.679				.040		
6	.04	286.73			.905				.040		
7	.05	299.67			1.132				.033		
8	.06	312.60			1.358				.035		
9	.07	325.53			1.584				.032		
10	.08	338.46			1.811				.032		
11	.09	351.40			2.037				.035		
12	.10	364.32			2.263				.037		
13	.12	390.20			2.716				.040		
14	.13	403.13			2.942				.038		
15	.14	416.06			3.169				.035		
16	.15	429.00			3.395				.036		
17	.16	441.93			3.621				.036		
18	.17	454.86			3.848				.035		
19	.18	467.79			4.074				.035		
20	.19	480.73			4.300				.035		
21	.20	493.66			4.527				.035		
22 C	.225	525.99			5.092				.035		
23	.25	558.32			5.658				.035		
24	.30	622.99			6.790				.035		
25	.35	687.66			7.922				.035		
26	.40	752.32			9.053				.034		
27 C	.45	816.99			10.185				.033		
28 C	.50	881.65			11.315				.032		
29 C	.55	946.32			12.443				.030		
30 C	.60	1010.9			13.580				.030		
31 C	.65	1075.6			14.711				.030		
32 C	.70	1140.3			15.843				.029		
33 C	.75	1204.9			16.975				.030		
34 C	.80	1269.6			18.106				.030		



TABLE V. Continued

T/C No.	x/L	Full Scale			Model Scale			$\phi$	Skin Thickness	Mat'l	Remarks
		$x_0$	$y_0$	$z_0$	$x_{\text{from nose}}$	$y$	$z_{\text{from FRL}}$				
35C	.85	1324.3	0	-	19.063	0	✓	0	.029	17-4	Bottom $\angle$
36C	.90	1398.9			20.369				.031		
37C	.925	1431.3			20.935				.027		
38C	.950	1463.6			21.501				.027		
39C	.975	1495.9			22.067				.023		
40	1.015	1547.7			22.972				.030		
41	1.03	1567.1			23.312				.030		
42	1.045	1586.5			23.651				.028		
43	1.06	1605.0	✓		23.977	✓		✓	.0265		✓
44	.05	299.67	25.0		1.132	.438		14	.032		Fuselage Bottom Surface
45	.10	364.33	20.0		2.263	.350		10	.036		
46	.15	429.0	24.0		3.395	.420		12	.035		
48	.20	493.66	50.0		4.527	.875		24	.025		
50C	.50	881.65	46.8		11.316	.819		-	.028		
51C	.60	1010.9			13.580				.025		
52C	.70	1140.3			15.843				.030		
53C	.80	1269.6			18.106				.030		
54C	.90	1398.6			20.369				.028		
55C	.95	1463.6			21.501				.025		
56C	.975	1495.9			22.067				.028		
57	1.015	1547.7			22.972				.030		
58	1.03	1567.1			23.312				.030		
59	1.045	1586.5			23.651				.030		
60	1.060	1605.0	✓		23.977	✓			.031		
61C	.40	752.32	93.60		9.053	1.638			.032		
62C	.50	881.65			11.316				.031		
63C	.60	1010.9			13.580				.033		
64C	.70	1140.3			15.843				.029		
65C	.80	1269.6			18.106				.031		
66C	.90	1398.6			20.369				.030		
67C	.95	1463.6			21.501				.029		
68C	.975	1495.9	✓	✓	22.067	✓	✓	✓	.028	✓	✓

TABLE V. Continued

T/C No.	x/L	Full Scale			Model Scale			$\phi$	Skin Thickness	Mat'l	Remarks
		X <sub>0</sub>	Y <sub>0</sub>	Z <sub>0</sub>	X <sub>from nose</sub>	Y	Z <sub>from FRL</sub>				
69	1.015	1547.7	93.6	-	22.972	1.638	-	-	.0275	17-4	Fus. Bottom Sur.
70	1.03	1567.1			23.312				.0285		
71	1.045	1586.5			23.651				.029		
72	1.06	1605.0			23.977				.027		
169	.01	247.93	0		.226	0		180	.033		Top $\angle$
170	.025	267.33			.565				.031		
171	.050	299.67			1.129				.035		
172	.075	332.0			1.694				.035		
173	.100	364.33			2.258				.034		
174	.125	396.66			2.283				.032		
175	.150	429.0			3.387				.032		
176	.160	441.93			3.613				.040		
177	.170	459.86			3.839				.040		
178	.180	467.79			4.064				.033		
179	.200	493.66			4.516				.036		
180	.25	558.1			5.058						
181	.3	622.59			5.70						
182	.40	752.32			9.053				.026		
183	.45	816.99			10.185				.026		
184	.50	881.65			11.316				.025		
185	.55	946.32			12.448				.026		
186	.60	1010.9			13.580				.025		
187	.65	1075.6			14.711				.024		
188	.70	1140.3			15.843				.025		
189	.75	1204.9			16.975				.0255		
190	.80	1269.6			18.106				.023		
191	-	-	6.00	452.0	-	.105	.910	-	.031		Window #1 Bott.
192			12.80	478.0		.224	1.365		.031		Right Top Right
193			21.20	464.9		.371	1.136		.030		Center
194			29.60	478.0		.518	1.365		.028		Top Left
195			34.30	452.0		.602	.910		.030		Bottom Right
196			40.40	452.0		.707	.910		.030		Window #2 Bottom Right
197			34.80	478.0		.609	1.365		.030		Top Right
198			44.80	464.9		.784	1.136		.030		Center

TABLE V. Continued

T/C No.	X/L	Full Scale		Model Scale				$\phi$	Skin Thickness	Mat'l	Remarks
		X <sub>0</sub>	Y <sub>0</sub>	Z <sub>0</sub>	X from nose	Y	Z from FRL				
199	-	-	43.20	478.0	-	.756	1.365	-	.030	17-4	Window #2 Top LT
200			59.20	452.0		1.036	.910		.029		Bottom Left
201			62.40	464.9		1.092	1.136		.029		Window #3 Center
202	.05	299.6	-	303.6	1.132	-	-1.687	22	.040		Fus. Side CCL
203				325.6			-1.302	35	.035		MHB
204				342.4			-1.008	42.5	.033		UT
205				378.4			-0.378	60	.033		45T
206	.076	332.2		350.0	1.720		-0.875	-	.035		RCS
207	.10	364.3	39.20	-	2.263	.686	-	20	.038		
208			52.00			.910	-	24.5	.035		CCL
209			-	317.6		-	-1.442	39	.035		MHB
210				410.0			0.175	119	.037		
211	.15	429.0	40.80	-	3.395	.714	-	20	.035		
212			62.00	-		1.085	-	25.5	.025		CCL
213			79.20	304.8		1.386	-1.666	40	.030		CCL
214			83.60	314.4		1.463	-1.498	45.5	.038		MHB
215	.20	493.6	65.80	287.20	4.527	1.148	-1.974	31.5	.022		CCL
216			75.60	292.0		1.323	-1.890	35	.022		CCL
217			85.20	298.8		1.491	-1.771	40	.020		CCL
218			-	320.0		-	-1.400	51	.035		MHB
219			-	360.0			-0.700	67.5	.030		UT
220			-	410.0			0.175	96.5	.031		Upper Fuselage
223	.40	752.32	-	-	9.053	-	-	157.5	.034		Upper Fuselage
224	.45	816.99			10.185				.034		
225	.50	881.65			11.316				.034		
226	.55	946.32			12.448				.035		
227	.60	1010.9			13.580				.034		
228	.65	1075.6			14.711				.0325		
229	.70	1140.3			15.843				.030		
230	.75	1204.9			16.975				.030		
231	.80	1269.6			18.106				.032		

TABLE V. Continued

T/C No.	X/L	Full Scale			Model Scale			$\phi$	Skin Thickness	Mat'l	Remarks
		X <sub>o</sub>	Y <sub>o</sub>	Z <sub>o</sub>	X <sub>from nose</sub>	Y	Z <sub>from FRL</sub>				
233	.40	752.32	-	-	9.053	-	-	135	.030	17-4	Upper Fuselage
234	.40	752.32	-	-	9.053	-	-	135	.030		
235	.45	816.99			10.185				.030		
236	.50	881.65			11.315				.026		
237	.55	946.32			12.448				.025		
238	.60	1010.9			13.580				.031		
239	.65	1075.6			14.711				.032		
240	.70	1140.3			15.843				.030		
241	.75	1204.9			16.975				.032		
242	.80	1269.6	↓	↓	18.105		↓	↓	.032		↓
288 C	.975	1496.0	-	381.2	22.068	-	-0.329	-	0.030		Aft Fuselage Side
388	.40	752.32	-	445.0	9.053		0.788	114	.031		Upper Fuselage Side
389	.45	816.99			10.185				.033		
390	.50	881.65			11.315				.036		
391	.55	946.32			12.448				.0345		
392	.60	1010.9			13.580				.0335		
393	.65	1075.6			14.711				.0345		
394	.70	1140.3			15.843				.034		
395	.75	1204.9			16.975				.036		
396	.80	1269.6	↓	↓	18.105	↓		↓	.034	↓	↓

TABLE V. Continued

## Wing T/C Locations

T/C No.	$\frac{2Y}{B}$	Full Scale			Model Scale			Elevon T/C	Skin Thickness	Mat'l	Remarks
		x/c	$x_o$	$y_o$	$x_{from}$ L.E.	Y					
73C	.30	0		140.5	0	2.459			.020	17-4	Wing Lower Sur.
74C		.05			.670				.020		
75C		.10			1.340				.026		
76C		.20			2.680				.031		
77C		.30			4.020				.030		
78C		.40			5.360				.031		
79C		.50			6.700				.030		
80C		.60			8.040				.030		
81C		.70			9.380				.031		
82C		.80			10.720				.030		
83		.90			12.060			X	.0305		
84	V	.95		V	12.730	V		X	.031		
86C	.40	0		187.3	0	3.277			.022		
87C		.05			.438				.031		
88C		.10			.876				.031		
89C		.20			1.753				.030		
90C		.30			2.629				.031		
91C		.40			3.506				.029		
92C		.60			5.258				.033		
93C		.70			6.135				.033		
94C		.75			6.573				.030		
95		.85			7.449				.0295		
96		.90			7.888			X	.026		
97	V	.95		V	8.326	V		X	.0275		
98C	.45	0		210.73	0	3.687		X	.030		
99C	.50	0		234.1	0	4.098			.027		
100C		.05			.364				.029		
101C		.10			.727				.030		
102C		.20			1.454				.031		
103C		.30			2.181				.031		
104C		.40			2.908				.031		
105C		.60			4.362				.032		
106C	V	.70		V	5.089	V			.031	V	V

TABLE V. Continued

## Wing T/C Locations

T/C No.	$\frac{2Y}{B}$	Full Scale			Model Scale			Elevo T/C	Skin Thickness	Hat'l	Remarks
		$\lambda/C$	$X_0$	$Y_0$	$X$ from L.E.	$Y$					
107	.50	.90		234.1	6.543	4.098		X	.0285	17-4	Wing Lower Sur.
108C	.55	0		257.6	0	4.508			.026		
109C	.60	0		281.0	0	4.918			.024		
110C		.025			.157				.029		
111C		.05			.314				.028		
112C		.075			.470				.030		
113C		.10			.627				.031		
114C		.20			1.254				.031		
115C		.30			1.862				.033		
116C		.40			2.509				.032		
117C		.50			3.136				.032		
118C		.60			3.763				.032		
119C		.70			4.390				.031		
120		.80			5.018			X	.030		
121		.85			5.331			X	.0305		
122		.90			5.645			X	.0295		
123		.95			5.958			X	.0295		
124C	.65	0		309.4	0	5.327			.026		
125C	.70	0		327.8	0	5.737			.017		
126C		.025			.133				.024		
127C		.10			.531				.032		
128C		.20			1.061				.036		
129C		.30			1.592				.036		
130C		.40			2.123				.035		
131		.60			3.184				.035		
132		.90			4.776			X	.031		
133	.75	0		352.8	0	6.174			.028		
134		.025			.121				.028		
135		.05			.241				.030		
136		.10			.483				.032		
137		.20			.965				.032		
138		.30			1.448				.035		
139		.40			1.930				.034		
140		.60			2.895				.033		

TABLE V. Continued

## Wing T/C Locations

T/C No.	$\frac{2Y}{B}$	Full Scale			Model Scale			Elevon T/C	Skin Thickness	Mat'l	Remarks
		X/C	X <sub>0</sub>	Y <sub>0</sub>	X <sub>from L.E</sub>	Y					
141C	.75	.70		352.8	3.378	6.174			.031	17-4	Wing Lower Surf.
142		.80			3.860			X	.027		
143		.90			4.343			X	.0305		
144	Y	.95		Y	4.584	Y		X	.0295		
145	.80	0		374.6	0	6.557			.024		
146		.20			.868				.032		
147		.40			1.737				.031		
148	Y	.90		Y	3.908	Y		X	.0305		
149	.85	0		398.1	0	6.967			.028		
150		.20			.772				.031		
151	Y	.40		Y	1.544	Y			.030		
152	.90	0		421.4	0	7.376			.028		
153		.10			.338				.030		
154		.20			.675				.031		
155C		.30			1.013				.031		
156		.50			1.689				.031		
157C		.60			2.026				.032		
158		.80			2.702			X	.0285		
159	Y	.90		Y	3.039	Y		X	.028		
160	.95	0		444.9	0	7.786			.030		
161		.05			.138				.031		
162		.10			.276				.030		
163		.20			.552				.032		
164		.30			.827				.031		
165		.50			1.379				.030		
166		.70			1.931			X	.0295		
167		.80			2.206			X	.030		
168	Y	.90		Y	2.482	Y		X	.0295		
246	.400	.05		187.3	.438	3.278			.024		Wing Upper Surface
247		.20			1.753				.028		
248	Y	.40		Y	3.506	Y			.024		

TABLE V. Continued

## WING T/C LOCATIONS

T/C No.	$\frac{2Y}{B}$	X/C	Full Scale		Model Scale		Elevon T/C	Skin Thickness	Mat'l	Remarks
			Xo	Yo	Y From IE	Y				
249	.40	.60		187.3	5.258	3.278		.020	17-4	Wing Upper Surf.
250		.75			6.573			.030		
251		.80			7.011		x	.029		
252	↓	.95		↓	8.326	↓	x	.025		
253	.60	.025		281.0	.157	4.918		.009		
254		.05			.314			.011		
255		.10			.627			.021		
256		.20			1.254			.025		
257		.40			2.509			.027		
258		.60			3.763			.024		
259		.75			4.703			.025		
260		.85			5.331		x	.027		
261	↓	.95		↓	5.958	↓	x	.020		
262	.70	.20		327.83	1.061	5.737		.024		
263		.10			2.123			.025		
264	↓	.90		↓	4.776	↓	x	.028		
265	.75	.10		352.25	.483	6.147		.023		
266		.20			.965			.023		
267		.40			1.930			.025		
268		.60			2.895			.022		
269		.80			3.860		x	.024		
270	↓	.90		↓	4.430	↓	x	.028		
271	.80	.90		374.69	3.908	6.557	x	.029		
272	.90	.20		421.99	.675	7.376		.025		
273		.40			1.351			.025		
274	↓	.60		↓	2.026	↓		.030		
275	.95	.20		444.91	.552	7.786		.023		
276		.40			1.103			.030		
277		.50			1.379			.025		
278		.70			1.930		x	.028		
279		.90			2.206		x	.029		
280	↓	.90		↓	2.481	↓	x	.028	↓	↓



TABLE V. Continued

CMS Pod T/C Locations

T/C No.	X/L	Full Scale			Model Scale			Skin Thickness	Hat'l	Remarks
		X <sub>0</sub>	Y <sub>0</sub>	Z <sub>0</sub>	X <sub>from Pod LE</sub>		Z <sub>from FRL</sub>			
<del>293</del>		<del>1311</del>	<del>106.9</del>	<del>428.6</del>					17-4	
<del>294</del>		<del>1311</del>	<del>106.9</del>	<del>428.6</del>						
<del>295</del>		<del>1311</del>	<del>106.9</del>	<del>428.6</del>						
<del>296</del>		<del>1311</del>	<del>106.9</del>	<del>428.6</del>						
<del>297</del>		<del>1311</del>	<del>106.9</del>	<del>428.6</del>						
298		1325	106.9	428.6				.030		
299			98.77	489.2				.033		
300			67.73	511.3				.030		
301			48.78	506.7				.028		
302		1350	123.6	440.4				.024		
303			132.0	458.6				.030		
304			108.9	498.5				.032		
305			69.5	524.4				.029		
306			47.3	515.5				.031		
<del>307</del>		<del>1350</del>	<del>123.6</del>	<del>440.4</del>						
308		1375	111.6	421.6				.016		
309			130.0	440.0				.023		
310			139.6	460.0				.035		
311			113.8	503.4				.028		
312			72.4	531.0				.031		
313		1400	88.28	523.4				.027		
<del>314</del>		<del>1400</del>	<del>88.28</del>	<del>523.4</del>						
315		1425	115.0	415.1				.031		
316			133.7	437.7				.030		
317			147.7	466.3				.038		
318			119.7	508.6				.027		
319			77.34	536.5				.030		
320		1450	117.48	418.20				.023		
321			134.5	436.0				.029		
322			149.8	468.2				.033		
323			122.2	511.1				.025		
<del>324</del>		<del>1450</del>	<del>117.48</del>	<del>418.20</del>						
325			48.3	526.6				.027		
<del>326</del>		<del>1450</del>	<del>117.48</del>	<del>418.20</del>						

### OMS Pod T/C Locations

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TABLE V. Continued  
VERTICAL TAIL T/C LOCATIONS

T/C No.	Z/BV	Y/C	Full Scale		Model Scale			Bulldoz T/C	Skin Thickness	Mat'l	Remarks
			Y <sub>0</sub>	Z <sub>0</sub>	Y from L.E.	Z from FRL					
340	.10	.10							.0315	17-9	External Surface
341		.30							.0305		
342	y	.50							.0295		
343	.20	.10							.031		
344		.20							.0302		
345		.40							.0313		
346		.60							.031		
347	y	.80							.0315		
348	.30	.05							.0297		
349		.20							.031		
350		.40							.031		
351		.50							.0318		
352	y	.90						x	.030		
353	.40	.10							.0305		
354		.20							.0315		
355		.40							.0315		
356		.50							.0308		
357		.70						x	.029		
358	y	.90						x	.0298		
359	.50	.05							.0285		
360		.70						x	.028		
361	y	.90						x	.0315		
362	.60	.05							.029		
363		.10							.0295		
364		.20							.0303		
365		.40							.0318		
366		.50							.0315		
367		.70						x	.028		
368	y	.90						x	.030		
369	.70	.05							.0275		
370		.70						x	.0275		
371	y	.90						x	.029		
372	.80	.05							.029		
373	y	.10							.0293	y	y

TABLE V. Continued

## VERTICAL TAIL T/C LOCATIONS

T/C No.	Z/BV	Full Scale			Model Scale			Rudder T/C	Skin Thickness	Mat'l	Remarks
		X/C	X <sub>0</sub>	Z <sub>0</sub>	X <sub>from</sub> L.E.	Z <sub>from</sub> FRL					
374	.80	.40							.031	17-4	External Surface
375		.50							.0325		
376		.70						X	.028		
377	Y	.90						X	.029		
378	.90	.10							.031		
379		.30							.0305		
380		.50							.032		
381		.70							.0308		
382	↓	.90							.0298		
383	.95	.30							.0313		
384		.50							.0315		
385	↓	.90							.033	↓	↓
397C									.0318	17-4	Speed Brake Cavity
398C									.0312		
399C									.0312		
400C									.0312	↓	↓

Table V. (Continued)

BASE HEATSHIELD THERMOCOUPLE LOCATIONS

T/C NO.	FULL SCALE		MODEL SCALE		MAT'L	SKIN THICK- NESS	REMARKS
	Y <sub>0</sub>	Z <sub>0</sub>	Y	Z FROM			
428	0	430	0	0.525	15-5	.032	
429	-70	430	-1.225	0.525		.031	
430	0	320	0	-1.400		.0315	
431	-110	320	-1.925	-1.400		.0305	

Table V. (CONTINUED)

Lower Left SSME Nozzle T/C Locations  
(Note Material)

T/C NO.	X FROM EXIT PLANE F.S.	X FROM EXIT PLANE M. S.	$\phi_n$ deg	MAT'L	SKIN THICKNESS, in.	REMARKS
408	5.0	0.088	315	15-5	.030	Smooth Nozzle
409	↓	↓	0	↓	.031	
411	↓	↓	45	↓	.0315	↓
412	↓	↓	65	↓	.032	
413	↓	↓	90	↓	.032	↓
414	↓	↓	135	↓	.0325	
415	10.0	0.175	0	↓	.0305	↓
418	↓	↓	65	↓	.0315	
419	↓	↓	90	↓	.032	↓
420	15.0	0.263	0	↓	.029	
421	↓	↓	45	↓	.0295	↓
422	↓	↓	90	↓	.030	
423	25.0	0.438	0	↓	.0255	↓
424	↓	↓	45	↓	.026	
425	↓	↓	65	↓	.026	↓
426	↓	↓	90	↓	.026	
427	45.0	0.788	45	15.5	.027	↓

(428 thru 431 on heat shield)

Table V. (CONTINUED)

Lower Right SSME Nozzle T/C Locations  
(Note Material)

432	5.0	0.088	315	17-4	.0289	Nozzle W/Hat Bands
433	↓	↓	0	↓	.0298	
434	↓	↓	25	↓	.0285	↓
435	↓	↓	45	↓	.0297	
436	↓	↓	65	↓	.0298	↓
437	↓	↓	90	↓	.0292	
438	↓	↓	135	↓	.0307	↓
439	10.0	0.175	0	↓	.0299	
440	↓	↓	25	↓	.0285	↓
441	↓	↓	45	↓	.0292	
442	↓	↓	65	↓	.0296	↓
443	↓	↓	90	↓	.0288	
444	15.42	0.270	0	↓	.0274	↓
445	↓	↓	25	↓	.0290	
446	↓	↓	45	↓	.0280	↓
447	↓	↓	65	↓	.0278	
448	↓	↓	90	↓	.0282	↓
449	25.0	0.438	0	↓	.0288	
450	↓	↓	25	↓	.0291	↓
451	↓	↓	45	↓	.0286	
452	↓	↓	65	↓	.0295	↓
453	↓	↓	90	↓	.0291	

TABLE V. Continued

## Upper Wing T/C Locations

T/C No.	$\frac{2Y}{B}$	FULL SCALE		MODEL SCALE		SKIN THICKNESS IN.	MAT'L	REMARKS
		$X_0$	$Y_0$	$X_0$	$Y_0$			
460	.500	1373.54	234.17	24.036	4.097	.0280	17-4	Wing Upper Surf.
461	.550		257.587		4.507	.0305		
462	.600		281.004		4.917	.0290		
463	.650		304.421		5.327	.0290		
464	.700		327.838		5.737	.0300		
465	.725		339.546		5.942	.0290		
466	.750		351.255		6.146	.0270		
467	.775		362.963		6.351	.0240		
468	.800		374.672		6.556	.0240		
469	.825		386.380		6.761	.0240		
470	.850		398.089		6.966	.0250		
471	.875		409.797		7.171	.0260		
472	.925		433.214		7.581	.0270		
277	.950		444.923		7.786	.0250		
473	.975	↓	456.631	↓	7.991	.0200	↓	↓

\* SPAN = 936.68 in full scale

\*\* T/C 274 REF.  $\frac{2Y}{B}$  = .900

T/C NO.	$\frac{2Y}{B}$	FULL SCALE		MODEL SCALE		Elevon T/C	SKIN THICK.	MAT'L	REMARKS
		X/C	$Y_0$	$X_{FRONT}$ LE	$Y_0$				
476	.700	.60	327.83	3.125	5.737		.0300	17-4	Wing Upper Surf.
477	.750	.50	351.25	2.411	6.147		.0280		
478	.800	.10	374.69	.435	6.557		.0310		
479		.30		1.305			.0320		
480		.40		1.740			.0320		
481		.50		2.171			.0320		
482	↓	-		24.33	↓	X	.0250		
483	.825	-	386.00	24.33	6.756	X	.0280		
484		.85		3.485		X	.0250		
485	↓	.90		3.690	↓	X	.0290		
486	.850	.10	397.94	.356	6.964		.0320		
487		.30		1.155			.0300		
488		.40		1.544			.0300		
489	↓	.50		2.000	↓		.0300		
490		-		24.33	↓	X	.0290		
491	.900	.90	421.50	3.033	7.376	X	.0290	↓	↓

TABLE V. Continued

T/C NO.	MODEL SCALE			SKIN THICKNESS	MATERIAL	LOCATION
	X <sub>0</sub>	Y <sub>0</sub>	Z <sub>0</sub>			
37A	4.553	0.252	-	.032	17-4	Lower Nose (LH)
38A	4.541	0.428	5.524	.033		
39A	4.515	-	5.696	.036		
41A	5.626	-	6.002	.031		
45A	6.361	1.041	5.266	.028		
46A	-	-	5.470	.030		
47A	-	1.230	5.673	.031		
65A	8.610	0.388	4.893	.030		
70A	8.610	1.681	5.388	.030		
107A	13.170	0.780	4.809	.024		Lower Mid Fuselage (LH)
114A	13.207	1.782	4.977	.031		
115A	13.107	1.962	-	.024		
116A	-	2.142	-	.020		
117A	-	2.322	-	.017		
118A	-	2.448	-	.025		
130A	15.356	1.837	4.882	.023		
131A	-	2.046	-	.029		
132A	-	2.250	-	.028		
133A	-	2.453	-	.026		
134A	-	2.663	-	.023		
135A	-	2.816	5.226	.027		
186A	24.329	1.819	4.681	.030		Lower Aft Fuselage
187A	24.925	1.883	-	.031		
188A	25.476	1.911	-	.028		
189A	25.923	1.981	-	.025		
196A	24.015	2.128	-	.028		
197A	24.480	2.459	-	.032		Lower Elevon (LH) Aft Fuselage & Elevon Split Line (LE)
320A	24.576	-	5.565	.0295		
321A	24.913	-	-	.0265		
322A	25.476	-	-	.027		
323A	26.038	-	-	.029		
336A	24.576	-	4.902	.030		
337A	24.913	-	-	.031		
338A	25.575	-	-	.028		
339A	26.138	-	-	.026		
341A	24.576	-	4.692	.030		
342A	24.913	-	4.692	.032		
343A	25.475	-	4.722	.031		
344A	26.038	-	4.759	.031		
249A	10.859	1.988	-	.030*		Upper Wing (RE)
250A	11.983	-	-	.028		
251A	13.107	-	-	.030		
252A	14.195	-	-	.022		
253A	17.545	1.970	-	.026		
254A	19.941	2.049	-	.018		
255A	22.330	2.047	-	.029		
256A	14.195	2.459	-	.020		



TABLE V. Concluded

## ADDITIONAL T/C LOCATIONS

T/C NO.	MODEL SCALE			SKIN THICKNESS	MATERIAL	LOCATION
	X <sub>0</sub>	Y <sub>0</sub>	Z <sub>0</sub>			
257A	15.535	2.459	4.759	.027	17-4	Upper Wing (RH)
258A	16.875		-	.020		
259A	18.215		-	.016		
260A	19.555		-	.028		
261A	20.895		-	.025		
262A	22.235		-	.030		
263A	23.576		-	.029		
279A	24.080	5.138	-	.030*		
113A	27.268	0.928	-	.030		Lower Body Flap
191A	27.268	1.819	-	.028		
314A	27.274	0	5.122	.0255	Upper Body Flap	
315A	28.017	0	-	.019		
316A	27.275	0.875	5.224	.0295		
317A	28.017	0.875	-	.028		
318A	27.275	1.837	5.122	.0295		
319A	28.017	1.697	-	.0295		
192A	26.994	-	5.064	.031	Body Flap, Edge	
193A	27.265	-	5.092	.0305		
194A	27.639	-	5.106	.031		
368A	26.091	0	9.303	.0305	Vertical Tail	
87A	9.799	1.101	7.781	.031	Upper Mid Fuselage (LH)	
88A	9.705	0.672	8.431	.026		
89A	9.717	1.709	6.654	.031		
102A	10.806	1.638	8.089	.023		
103A	10.806	0.867	8.523	.015		
122A	13.077	1.684	-	.0252	Upper Mid Fuselage (LH)	
124A	13.107	1.128	-	.0308		
125A	13.077	0.868	-	.029		
126A	13.107	0.560	-	.0285		
127A	13.107	0.280	-	.0245		
139A	15.347	1.584	-	.0337		
140A	15.347	0.868	-	.0291		
404A	17.574	1.572	-	.0301		
405A	17.549	1.120	-	.0322		
406A	17.574	0.868	-	.0285		
407A		0.560	-	.0284		
408A		0.280	-	.0260		
410A	19.845	1.572	-	.0334		
155A	22.000	1.572	-	.0307		
156A	22.000	0.868	-	.0264		
157A	22.640	1.582	-	.0325		
158A		1.218	-	.0248		
159A		0.868	-	.0264		
160A		0.308	-	.0306		
35A	22.610	0.014	-	.0278		

\*Normal Value; Skin Thickness Not Measured

TABLE VI. 56-Ø MODEL THERMOCOUPLE LOCATIONS

T/C No.	b, in.	X/L	Z <sub>o</sub>
1	0.0215	0.275	437.5
2	0.0210	0.300	442.0
3	0.0217	0.325	445.0
4	0.0215	0.350	↓
5	0.0212	0.375	
6	0.0217	0.400	
7	0.0215	0.425	
8	0.0218	0.450	
9	0.0219	0.475	
10	0.0220	0.500	
11	0.0220	0.525	
12	0.0222	0.550	
13	0.0220	0.600	
14	0.0220	0.650	↓
15	0.0228	0.700	
16	0.0220	0.750	
17	0.0230	0.800	
18	0.0190	0.285	445.0
19	0.0184	0.337	420.0
20	0.0189	0.390	↓
21	0.0190	0.426	
22	0.0200	0.478	
23	0.0200	0.530	
24	0.0205	0.567	
25	0.0205	0.620	
26	0.0205	0.670	
27	0.0207	0.705	420.0

T/C No.	b, in.	X/L	Z <sub>o</sub>
28	0.0203	0.750	420.0
29	0.0202	0.800	420.0
30	0.0160	0.824	420.0
31	0.0210	0.200	400.0
32	0.0199	0.225	↓
33	0.0199	0.250	
34	0.0186	0.275	
35	0.0180	0.300	
36	0.0190	0.325	
37	0.0192	0.350	
38	0.0190	0.375	
39	0.0189	0.400	
40	0.0188	0.425	
41	0.0195	0.450	
42	0.0200	0.475	↓
43	0.0200	0.500	
44	0.0190	0.525	
45	0.0200	0.550	
46	0.0205	0.600	
47	0.0210	0.650	
48	0.0202	0.700	
49	0.0205	0.750	
50	0.0208	0.800	
51	0.0180	0.850	
52	0.0180	0.875	↓
53	0.0160	0.900	
54	0.0170	0.925	400.0

T/C No.	b, in.	X/L	Z <sub>o</sub>
55	0.0220	0.950	400.0
56	0.0170	0.300	372.5
57	0.0170	0.325	↓
58	0.0170	0.350	
59	0.0170	0.375	
60	0.0170	0.400	
61	0.0170	0.425	
62	0.0172	0.450	
63	0.0175	0.475	
64	0.0180	0.500	
65	0.0180	0.525	
66	0.0190	0.550	↓
67	0.0198	0.600	
68	0.0190	0.650	
69	0.0200	0.700	
70	0.0200	0.750	372.5
71	0.0195	0.200	355.0
72	0.0190	0.225	↓
73	0.0190	0.250	
74	0.0180	0.275	
75	0.0185	0.800	
76	0.0188	0.850	
77	0.0170	0.875	
78	0.0172	0.900	
79	0.0180	0.925	
80	0.0190	0.950	355.0

TABLE VII. 83-Ø MODEL THERMOCOUPLE LOCATIONS

T/C NO.	LOCATION	Z <sub>0</sub> (INCHES)	X <sub>0</sub> (INCHES)	X/ L			SKIN THICKNESS (INCHES)	
161	UPPER RCS NOZZLES ↓	-7.5	315.0	0.0619			0.0265	
162		-7.5	326.7	0.0709			0.0212	
163		-7.5	339.3	0.0807			0.0275	
164		-7.5	357.0	0.0943			0.0292	
165		-7.5	361.5	0.0978			0.0282	
166		-7.5	366.0	0.1013			0.0287	
167		-15.0	315.0	0.0619			0.0303	
168		-15.0	326.7	0.0709			0.0235	
169		-15.0	339.3	0.0807			0.0272	
170		-15.0	357.0	0.0943			0.0280	
171		-15.0	361.5	0.0978			0.0270	
172		-15.0	366.0	0.1013			0.0292	
173		-22.5	339.3	0.0807			0.0299	
174		-22.5	357.0	0.0943			0.0255	
175		-22.5	361.5	0.0978			0.0321	
176		-22.5	366.0	0.1013			0.0305	

TABLE VII. Continued

T/C NO.	LOCATION	RAY	LINE	SKIN THICKNESS (INCHES)	
177	CANOPY ↓	1	4	0.0308	
178		1	6	0.0440	
179		2	6	0.0469	
180		3	3	0.0292	
181		3	4	0.0304	
182		3	5	0.0319	
183		4	1	0.0281	
184		↓	2	0.0306	
185			3	0.0269	
186			4	0.0281	
187			5	0.0298	
188		↓	6	0.0592	
189		5	3	0.0319	
190		5	4	0.0322	
191		5	5	0.0342	
192		6	2	0.0316	
193		6	6	0.0431	
194		7	3	0.0289	
195		7	4	0.0276	
196		7	5	0.0294	
197		8	1	0.0222	
198		↓	2	0.0260	
199			3	0.0301	
200			4	0.0319	

TABLE VII. Continued

T/C NO.	LOCATION	RAY	LINE	SKIN THICKNESS (INCHES)	
201	CANOPY	8	5	0.0316	
202		8	6	0.0283	
203		9	3	0.0278	
204		9	4	0.0348	
205		9	5	0.0349	
206		10	2	0.0297	
207		10	6	0.0300	
208		11	3	0.0301	
209		11	4	0.0308	
210		11	5	0.0299	
211		12	1	0.0272	
212			2	0.0302	
213			3	0.0297	
214			4	0.0314	
215			5	0.0318	
216			6	0.0318	
217		↓	7	0.0319	
218		13	3	0.0309	
219		↓	4	0.0315	
220		↓	5	0.0308	
221		14	1	0.0271	
222		↓	2	0.0276	
223		↓	6	0.0304	

TABLE VII. CONTINUED

T/C NO.	LOCATION	X <sub>o</sub> (INCHES)	Y <sub>o</sub> (INCHES)	X/L	SKIN THICKNESS (INCHES)
	ESCAPE HATCH & WINDOW				
224		485.0	-7.6	0.1933	0.0233
225		490.0	-7.6	0.1972	0.0268
226		485.0	-18.0	0.1933	0.0236
227		490.0	-18.0	0.1972	0.0328
228		485.0	-30.6	0.1933	0.0288
229		490.0	-30.6	0.1972	0.0288
230		547.9	-10.8	0.2425	0.0314
231		560.0	-10.6	0.2519	0.0324
232		567.0	-11.0	0.2567	0.0303
233		572.0	-11.0	0.2606	0.0340
234		547.5	-23.0	0.2416	0.0305
235		559.5	-23.0	0.2509	0.0305
236		567.0	-23.0	0.2567	0.0328
237		572.0	-23.0	0.2606	0.0315

TABLE VII. Continued

T/C No	Z <sub>0</sub>	X <sub>0</sub>	X/L	Skin Thickness	T/C No	Z <sub>0</sub>	X <sub>0</sub>	X/L	Skin Thickness
					MHB LINE				
					300		396 663	0 125	0.0252
					301		428 995	0 150	0 0280
					302		461 3275	0 175	0.0306
					303		493 660	0 200	0 0280
					304		525 993	0 225	0.0205
					305		558 325	0 250	0.0283
					306		590 658	0 275	0 0340
					307		655 323	0 325	0 0245
					308		719 988	0 375	0 0290
					309		784 318	0 425	0.0298
					310		849 318	0 475	0.0272
					311	355 0	493 66	0 200	0 0230
					312		525 993	0 225	0 0250
					313		558 325	0 250	0 0296
					314		590.658	0 275	0 0279
					315		622 990	0 300	0.0308
					316		655 323	0 325	0 0279
					317		687 655	0 350	0 0311
					318		719 988	0 375	0 0302
					319		752 320	0 400	0.0278
					320		784 653	0 425	0 0285
					321		816 985	0 450	0 0270
					322	355.0	849 318	0 475	0 0200
					323	378 0	493 660	0 200	0 0259
					324		525 993	0 225	0.0208
					325		558 325	0.250	0 0279
					326		590.658	0 275	0.0261
					327		622 990	0 300	0 0280
					328		655 323	0.325	0 0249
					329		687 655	0 350	0.0300
					330		719 988	0 375	0 0282
					331		752 320	0 400	0.0209
					332		784 653	0 425	0 0276
					333	378 0	816 985	0 450	0 0273
					334	400 0	525 993	0 225	0 0255
					335		558 325	0 250	0.0289
					336		590 658	0 275	0.0262
					337		622 990	0 300	0.0308
					338		655 323	0 325	0.0209
					339		687 655	0 350	0.0302
					MHB LINE				
273		236 25	0 0010	0.0269					
274		237.37	0 0018	0.0272					
275		240 25	0 0041	0.0277					
276		244 00	0 0070	0 0280					
277		248 28	0.0103	0.0279					
278		254.40	0.0150	0.0283					
279		260 75	0 0199	0 0232					
280		265 00	0 0232	0.0210					
281		269 00	0 0263	0.0190					
282		273 63	0 0299	0 0230					
283		278 75	0 0338	0.0231					
284		284 25	0 0381	0.0230					
285		288 50	0 0414	0 0230					
286		293 5	0.0452	0.0240					
287		300 00	0 0503	0.0230					
288		364 330	0 100	0.0280					
289		428 995	0 150	0.0300					
290		493 660	0 200	0.0260					
291		558 325	0.250	0.0273					
292		622.990	0 300	0 0275					
293		687 655	0.350	0.0261					
294		752 320	0 400	0.0276					
295		816 985	0 450	0.0292					
					MHB LINE				
296		267 333	0 025	0.0292					
297		299 665	0 050	0.0268					
298		331 998	0 075	0.0270					
299		364 330	0 100	0 0278					

TABLE VII. Continued

T/C No	Z <sub>0</sub>	X <sub>0</sub>	X/L	Skin Thickness	T/C No	Z <sub>0</sub>	X <sub>0</sub>	X/L	Skin Thickness
MHB LINE (CONT'D)					TOP CENTERLINE (CONT'D)				
340	400 0	719 988	0 375	0.0300	374	254 50	0 0151	0 0293	
341	↑	752 320	0.400	0.0279	375	258 50	0 0182	0.0306	
342	↓	784 653	0.425	0.0270	376	262 75	0 0215	0.0295	
343	400 0	816 985	0 450	0.0276	377	266 75	0 0246	0.0288	
344	425 0	655 335	0.325	0.031	378	271 00	0 0278	0 0261	
345	↑	687 655	0 350	0.030	379	313 75	0 0609	0.0275	
346	↑	719 988	0.375	0.030	380	318 50	0 0646	0.023	
347	↑	752 320	0 400	0.030	381	323 50	0 0684	0.029	
348	↑	784 653	0.425	0.032	382	328 25	0 0721	0.0293	
349	↓	816 985	0 450	0.031	383	333 25	0 0760	0 030	
350	425 0	850 600	0 4760	0.033	384	338 00	0 0796	0.0312	
CCL LINE					385	358.00	0.0953	0.0288	
					386	362.60	0.0989	0.0265	
					387	366 75	0 1019	0.0275	
351		299 665	0 050	0.0271	388	385 00	0 1160	0.0213	
352		331 998	0 075	0.0269	389	389 50	0 1195	0.0325	
353		364 330	0 100	0.0263	390	394 25	0 1231	0.0353	
354		396 663	0 125	0.0268	391	399 00	0 1268	0 0357	
355		428 995	0 150	0.0273	392	403 75	0 1305	0.0384	
356		461 328	0 175	0.0311	393	408 00	0 1338	0 0379	
357		493 660	0 200	0.0262	394	413 00	0 1376	0 0376	
358		590.658	0.275	0.032	395	417 50	0.1411	0 0335	
359		622 990	0 300	0.0310	396	422 25	0 1448	0 0332	
360		655 323	0 325	0.030	397	426 75	0 1483	0.0332	
361		687 655	0.350	0.0305	398	431.50	0 1519	0.0315	
362		719 988	0 375	0.030	399	436 25	0 1556	0 0299	
363		752 320	0 400	0.032	400	439 63	0 1582	0 0302	
364		784 653	0 425	0.032	401	443 00	0 1608	0.0290	
365		816 985	0 450	0.032	402	446.50	0 1635	0.0279	
366		850 600	0.4760	0.0315	403	450 25	0 1664	0.0272	
TOP CENTERLINE					404	453 75	0 1691	0.0271	
					405	457 50	0 1720	0 0271	
					406	461 00	0 1748	0.0271	
367		235 000	0 000	0.0263	407	463 75	0.1769	0 0289	
368		236 000	0 0008	0.0284	408	466 75	0 1800	0.0328	
369		237 500	0.0019	0.0262	409	471.75	0 1831	0.0322	
370		239 750	0.0037	0.0273	410	476 00	0.1863	0.0322	
371		242 500	0 0058	0.0219	411	480 00	0 1894	0.0336	
372		246 250	0 0087	0.0268	412	474 75	0 1931	0.0322	
373		250 250	0 0118	0.0293					



TABLE VII Continued

T/C NO.	LOCATION	$Z_0$ (INCHES)	$X_0$ (INCHES)	$X/L$	$\theta$ (DEGREES)	SKIN THICKNESS (INCHES)
413	TOP CENTERLINE		490.00	0.1972		0.0300
414			500.00	0.2049		0.0300
415			525.993	0.2250		0.0221
416			558.325	0.250		0.0262
417			590.658	.275		0.0330
418			622.990	.300		0.0350
419			655.323	.325		0.0330
420			687.655	.350		0.0322
421			719.988	.375		0.0329
422			752.320	.400		0.0328
423			784.652	.425		0.0316
424			816.985	.450		0.0335
425			849.318	.475		0.034
426	PILOT RIGTH (Cross		270	.027	350	0.0206
427	Section)				343	0.0219
428					335	0.0239
429					324	0.0259
430					320	0.0279
431					310	0.0285
432					303	0.0288
433					295	0.0288
434					287.5	0.0292
435					280	0.0293
436					273	0.0295
437			300	.050	352.5	0.025
438					347	0.0258
439					339	0.0249
440					334	0.024

TABLE VII. Continued

T/C NO.	LOCATION	$z_0$ (INCHES)	$x_0$ (INCHES)	$x/L$	$\theta$ (DEGREES)	SKIN THICKNESS (INCHES)
441	PILOT RIGHT (Cross Section)  ↓		300	.050	327.5	0.024
442			↓	↓	321.5	0.028
443			↓	↓	318	0.0283
444			↓	↓	311	0.0270
445			↓	↓	306	0.026
446			↓	↓	300	0.0245
447			↓	↓	295	0.0225
448			↓	↓	289	0.0278
449			↓	↓	284	0.0258
450			↓	↓	274	0.0190
451			500	.2049	355	0.025
452			↓	↓	351	0.023
453			↓	↓	346	0.023
454			↓	↓	342	0.023
455			↓	↓	338	0.023
456			↓	↓	333	0.023
457			↓	↓	330	0.023
458			↓	↓	326	0.024
459			↓	↓	322	0.026
460			↓	↓	320	0.026
461			↓	↓	317	0.027
462			↓	↓	313.5	0.027
463			↓	↓	310.5	0.026
464			↓	↓	307	0.025
465			↓	↓	305	0.0263
466			↓	↓	303	0.027
467			↓	↓	300.5	0.0265
468			↓	↓	298	0.025

TABLE VII. Concluded

T/C NO.	LOCATION	$Z_0$ (INCHES)	$X_0$ (INCHES)	$X/L$	$\theta$ (DEGREES)	SKIN THICKNESS (INCHES)
469	PILOT RIGTH (Cross Section) ↓		500	.2049	295	0.028
470			↓	↓	292	0.023
471					290	0.023
472					287	0.021
473					284	0.0275
474					278	0.023
475					275.5	0.023
476					273	0.024
477					270	0.0253
501			260.75	.0200	348.5	0.022
502			↓	↓	338.2	0.021
503					328.7	0.025
504					320.5	0.028
505					312.3	0.027
506					303.5	0.025
507					296.5	0.021
508					287	0.019
509					278.6	0.023
510					270.0	0.023
511					262	0.026

TABLE VIII. THERMOCOUPLE CONSTANT SETS

CONSTANT SET 111  
MODEL: 60-Ø, OH-84B

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	340	X/C	Z/BV	34	373	X/C	Z/BV	67	320	X <sub>0</sub>	Y <sub>0</sub>
2	341			35	374			68	321		
3	342			36	375			69	322		
4	343			37	376			70	323		
5	344			38	377			71	325		
6	345			39	378			72	327		
7	346			40	379			73	328		
8	347			41	380			74	329		
9	348			42	381			75	330		Y
10	349			43	382			76	331		Y <sub>0</sub>
11	350			44	383			77	332		Z <sub>0</sub>
12	351			45	384	Y	Y	78	333		
13	352			46	385	X/C	Z/BV	79	334		Y
14	353			47	298	X <sub>0</sub>	Y <sub>0</sub>	80	335		Z <sub>0</sub>
15	354			48	299			81	336		Y <sub>0</sub>
16	355			49	300			82	337		Z <sub>0</sub>
17	356			50	301			83	338	Y	
18	357			51	302			84	339	X <sub>0</sub>	Y
19	358			52	303			85	368A	X/L	Z <sub>0</sub>
20	359			53	304			86	397C	-	-
21	360			54	305			87	398C	-	-
22	361			55	306			88	399C	-	-
23	362			56	308			89	400C	-	-
24	363			57	309			90	110C	X/C	Y <sub>0</sub>
25	364			58	310			91	111C		
26	365			59	311			92	112C		
27	366			60	312			93	113C		
28	367			61	313			94	114C		
29	368			62	315			95	115C		
30	369			63	316			96	116C	Y	Y
31	370			64	317			97	117C	X/C	Y <sub>0</sub>
32	371	Y	Y	65	318	Y	Y				
33	372	X/C	Z/BV	66	319	X <sub>0</sub>	Y <sub>0</sub>				

TABLE VIII. (Continued)  
 CONSTANT SET 122  
 MODEL: 60-Ø, OH-84B

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	1	X/L	Ø	34	182	X/L	Ø	67	88A	X/L	Y
2	2	↓	↓	35	223	↓	↓	68	89A	↓	↓
3	3	↓	↓	36	234	↓	↓	69	103A	↓	↓
4	4	X/L	Ø	37	388	↓	↓	70	102A	↓	↓
5	120	X/C	Y	38	184	↓	↓	71	127A	↓	↓
6	121	↓	↓	39	225	↓	↓	72	126A	↓	↓
7	122	↓	↓	40	236	↓	↓	73	125A	↓	↓
8	123	↓	↓	41	390	↓	↓	74	124A	↓	↓
9	253	↓	↓	42	186	↓	↓	75	122A	↓	↓
10	254	↓	↓	43	188	↓	↓	76	140A	↓	↓
11	255	↓	↓	44	229	↓	↓	77	139A	↓	↓
12	256	↓	↓	45	240	↓	↓	78	408A	↓	↓
13	257	↓	↓	46	394	↓	↓	79	407A	↓	↓
14	258	↓	↓	47	190	↓	↓	80	406A	↓	↓
15	259	↓	↓	48	231	↓	↓	81	405A	↓	↓
16	260	↓	↓	49	242	↓	↓	82	404A	↓	↓
17	261	X/C	Y	50	279A	↓	↓	83	410A	↓	↓
18	460	2Y/B	X <sub>0</sub>	51	249A	↓	↓	84	156A	↓	↓
19	461	↓	↓	52	250A	↓	↓	85	155A	↓	↓
20	462	↓	↓	53	251A	↓	↓	86	36A	↓	↓
21	463	↓	↓	54	252A	↓	↓	87	160A	↓	↓
22	464	↓	↓	55	253A	↓	↓	88	159A	↓	↓
23	465	↓	↓	56	254A	↓	↓	89	158A	↓	↓
24	466	↓	↓	57	255A	↓	↓	90	157A	↓	Y
25	467	↓	↓	58	256A	↓	↓	91	320A	↓	Z
26	468	↓	↓	59	257A	↓	↓	92	321A	↓	↓
27	469	↓	↓	60	258A	↓	↓	93	322A	↓	↓
28	470	↓	↓	61	259A	↓	↓	94	323A	X/L	Z
29	471	↓	↓	62	260A	↓	↓	95	118C	X/C	Y
30	274	↓	↓	63	261A	↓	↓	96	119C	X/C	Y
31	472	↓	↓	64	262A	↓	↓	97	288C	X/L	Z
32	277	↓	↓	65	263A	↓	↓				
33	473	2Y/B	X <sub>0</sub>	66	87A	X/L	Y				

TABLE VIII. (Continued)

CONSTANT SET 133  
MODEL: 60-0, OH-84B

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	5	X/L	φ	34	218	X/L	Z	67	70A	X/L	Y
2	6		φ	35	219		Z	68	107A		
3	7		φ	36	23		φ	69	114A		
4	44		Y	37	24			70	115A		
5	202		Z	38	25	↓	↓	71	116A		
6	203			39	26	X/L	φ	72	117A		
7	204		↓	40	191	Y	Z	73	118A		
8	205		Z	41	192			74	130A		
9	8		φ	42	193			75	131A		
10	206		Z	43	194			76	132A		
11	9		φ	44	195			77	133A		
12	10			45	196			78	134A		↓
13	11		↓	46	197			79	135A		Y
14	12		φ	47	198			80	220C		Z
15	45		Y	48	199			81	27C		φ
16	207		Y	49	200	↓	↓	82	28C		φ
17	208		Y	50	201	Y	Z	83	50C		Y
18	209		Z	51	164	X/C	Y	84	62C		Y
19	13		φ	52	165			85	29C		φ
20	14			53	166			86	30C		φ
21	15		↓	54	167	↓	↓	87	51C		Y
22	16		φ	55	168	X/C	Y	88	63C		Y
23	211		Y	56	18	X/L	φ	89	31C		φ
24	212			57	278	X/C	Y	90	32C		φ
25	213		↓	58	279	X/C		91	52C		Y
26	214		Y	59	280	X/C		92	64C		Y
27	21		φ	60	37A	X/L	↓	93	33C		φ
28	17		φ	61	38A		Y	94	34C		φ
29	48		Y	62	39A		Z	95	53C		Y
30	19		φ	63	45A		Y	96	65C	↓	Y
31	215		Y	64	46A		Z	97	35C	X/L	φ
32	216	↓	Y	65	47A	↓	Y				
33	217	X/L	Y	66	65A	X/L	Y				

TABLE VIII. (Continued)

 CONSTANT SET 211  
 MODEL: 60-Ø OH84B

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	432	XN	ΦN	34	60	X/L	Y <sub>0</sub>	67	188A	X/L	Y <sub>0</sub>
2	433	↓	↓	35	69	↓	↓	68	189A	↓	Y <sub>0</sub>
3	434	↓	↓	36	70	↓	↓	69	196A	↓	Y <sub>0</sub>
4	435	↓	↓	37	71	↓	↓	70	320A	↓	Z <sub>0</sub>
5	436	↓	↓	38	72	X/L	↓	71	321A	↓	↓
6	437	↓	↓	39	164	X/C	↓	72	322A	↓	↓
7	438	↓	↓	40	165	↓	↓	73	323A	↓	↓
8	439	↓	↓	41	166	↓	↓	74	336A	↓	↓
9	440	↓	↓	42	167	↓	↓	75	337A	↓	↓
10	441	↓	↓	43	168	↓	↓	76	338A	↓	↓
11	442	↓	↓	44	156	↓	↓	77	339A	↓	↓
12	443	↓	↓	45	158	↓	↓	78	341A	↓	↓
13	444	↓	↓	46	159	↓	↓	79	342A	↓	↓
14	445	↓	↓	47	146	↓	↓	80	343A	↓	↓
15	446	↓	↓	48	147	↓	↓	81	344A	↓	Z <sub>0</sub>
16	447	↓	↓	49	148	↓	↓	82	34C	↓	Φ
17	448	↓	↓	50	138	↓	↓	83	35C	↓	↓
18	449	↓	↓	51	139	↓	↓	84	36C	↓	↓
19	450	↓	↓	52	140	↓	↓	85	37C	↓	↓
20	451	↓	↓	53	142	X/C	↓	86	38C	↓	↓
21	452	↓	↓	54	314A	X/L	↓	87	39C	↓	Φ
22	453	XN	ΦN	55	315A	↓	↓	88	54C	↓	Y <sub>0</sub>
23	428	Y <sub>0</sub>	Z <sub>0</sub>	56	316A	↓	↓	89	55C	↓	↓
24	429	↓	↓	57	317A	↓	↓	90	56C	↓	↓
25	430	↓	↓	58	318A	↓	↓	91	66C	↓	↓
26	431	Y <sub>0</sub>	Z <sub>0</sub>	59	319A	↓	↓	92	67C	↓	↓
27	40	X/L	Φ	60	113A	↓	↓	93	68C	↓	Y <sub>0</sub>
28	41	↓	↓	61	191A	↓	↓	94	288C	X/L	Z <sub>0</sub>
29	42	↓	↓	62	192A	↓	↓	95	155C	X/C	Y <sub>0</sub>
30	43	↓	↓	63	193A	↓	↓	96	157C	X/C	Y <sub>0</sub>
31	57	↓	↓	64	194A	↓	↓	97	141C	X/C	Y <sub>0</sub>
32	58	↓	↓	65	186A	↓	↓				
33	59	X/L	Y <sub>0</sub>	66	187A	X/L	Y <sub>0</sub>				

TABLE VIII. (Continued)

CONSTANT SET 222  
MODEL: 60-0, OH-84B

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	143	X/C	Y <sub>0</sub>	34	464	2Y/B	X <sub>0</sub>	67	491	2Y/B	X/C
2	144	↓	↓	35	264	X/C	Y <sub>0</sub>	68	472	2Y/B	X <sub>0</sub>
3	131	↓	↓	36	465	2Y/B	X <sub>0</sub>	69	275	X/C	Y <sub>0</sub>
4	132	↓	↓	37	265	X/C	Y <sub>0</sub>	70	276	X/C	Y <sub>0</sub>
5	120	↓	↓	38	266	X/C	Y <sub>0</sub>	71	277	2Y/B	X <sub>0</sub>
6	121	↓	↓	39	267	X/C	Y <sub>0</sub>	72	278	X/C	Y <sub>0</sub>
7	122	↓	↓	40	477	2Y/B	X <sub>0</sub>	73	279	X/C	Y <sub>0</sub>
8	123	↓	↓	41	268	X/C	Y <sub>0</sub>	74	280	X/C	Y <sub>0</sub>
9	107	↓	↓	42	466	2Y/B	X <sub>0</sub>	75	473	2Y/B	X <sub>0</sub>
10	95	↓	↓	43	269	X/C	Y <sub>0</sub>	76	253	X/C	Y <sub>0</sub>
11	96	↓	↓	44	270	X/C	Y <sub>0</sub>	77	254	X/C	↓
12	97	↓	↓	45	467	2Y/B	X <sub>0</sub>	78	255	X/C	↓
13	83	↓	↓	46	478	↓	X/C	79	197A	X/L	↓
14	84	↓	↓	47	479	↓	↓	80	279A	X/L	↓
15	247	↓	↓	48	480	↓	↓	81	130C	X/C	↓
16	248	↓	↓	49	481	↓	X/C	82	116C	↓	↓
17	249	↓	↓	50	468	↓	X <sub>0</sub>	83	117C	↓	↓
18	250	↓	↓	51	482	2Y/B	X	84	118C	↓	↓
19	251	↓	↓	52	271	X/C	Y <sub>0</sub>	85	119C	↓	↓
20	252	X/C	Y <sub>0</sub>	53	469	2Y/B	X <sub>0</sub>	86	104C	↓	↓
21	460	2Y/B	X <sub>0</sub>	54	483	↓	X	87	105C	↓	↓
22	461	2Y/B	X <sub>0</sub>	55	484	↓	X/C	88	106C	↓	↓
23	256	X/C	Y <sub>0</sub>	56	485	↓	↓	89	92C	↓	↓
24	257	↓	↓	57	486	↓	↓	90	93C	↓	↓
25	258	↓	↓	58	487	↓	↓	91	94C	↓	↓
26	259	X/C	Y <sub>0</sub>	59	488	↓	↓	92	78C	↓	↓
27	462	2Y/B	X <sub>0</sub>	60	489	↓	X/C	93	79C	↓	↓
28	260	X/C	Y <sub>0</sub>	61	470	↓	X <sub>0</sub>	94	80C	↓	↓
29	261	X/C	Y <sub>0</sub>	62	490	↓	X	95	81C	↓	↓
30	463	2Y/B	X <sub>0</sub>	63	471	2Y/B	X <sub>0</sub>	96	82C	X/C	Y <sub>0</sub>
31	262	X/C	Y <sub>0</sub>	64	272	X/C	Y <sub>0</sub>	97			
32	263	X/C	Y <sub>0</sub>	65	273	X/C	Y <sub>0</sub>				
33	476	2Y/B	X/C	66	274	2Y/B	X <sub>0</sub>				



TABLE VIII. (Continued)

CONSTANT SET 311  
MODEL: 56-0, IH-102

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	1	X/L	Z	34	34	X/L	Z	67	67	X/L	Z
2	2			35	35			68	68		
3	3			36	36			69	69		
4	4			37	37			70	70		
5	5			38	38			71	71		
6	6			39	39			72	72		
7	7			40	40			73	73		
8	8			41	41			74	74		
9	9			42	42			75	75		
10	10			43	43			76	76		
11	11			44	44			77	77		
12	12			45	45			78	78		
13	13			46	46			79	79	↓	↓
14	14			47	47			80	80	X/L	Z
15	15			48	48			81			
16	16			49	49			82			
17	17			50	50			83			
18	18			51	51			84			
19	19			52	52			85			
20	20			53	53			86			
21	21			54	54			87			
22	22			55	55			88			
23	23			56	56			89			
24	24			57	57			90			
25	25			58	58			91			
26	26			59	59			92			
27	27			60	60			93			
28	28			61	61			94			
29	29			62	62			95			
30	30			63	63			96			
31	31			64	64			97			
32	32	↓	↓	65	65	↓	↓				
33	33	X/L	Z	66	66	X/L	Z				

TABLE VIII. (Continued)

CONSTANT SET 411

MODEL: 83-Ø, IH-102

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	273	X/L	Ø	34	307	X/L	Z	67	345	X/L	Z
2	274			35	308			68	346		
3	275			36	309			69	347		
4	276			37	311			70	348		
5	277			38	312			71	351		
6	278			39	313			72	352		
7	279			40	314			73	353		
8	280			41	315			74	354		
9	281			42	316			75	355		
10	282			43	317			76	356		
11	283			44	318			77	357		
12	284			45	319			78	358		
13	285			46	320			79	359		
14	286			47	323			80	360		
15	287			48	324			81	361		
16	288			49	325			82	362		
17	289			50	326			83	363		Y
18	290			51	327			84	364		Z
19	291			52	328			85	427		Ø
20	292			53	329			86	428		
21	293		Y	54	330			87	429		
22	294		Ø	55	331			88	430		
23	296		Z	56	332			89	431		
24	297			57	334			90	432		
25	298			58	335			91	433		
26	299			59	336			92	434		
27	300			60	337			93	435		
28	301			61	338			94	436		
29	302			62	339			95	437	Y	Y
30	303			63	340			96	438	X/L	Ø
31	304			64	341			97			
32	305	Y	Y	65	342	Y	Y				
33	306	X/L	Z	66	344	X/L	Z				

TABLE VIII. (Continued)

CONSTANT SET 422  
MODEL: 83-0, IH-102

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	439	X/L	φ	34	472	X/L	φ	67	394	X/L	φ
2	440			35	473			68	395		
3	441			36	474			69	396		
4	442			37	475			70	397		
5	443			38	476			71	398		
6	444			39	477			72	399		
7	445			40	367			73	400		
8	446			41	368			74	401		
9	447			42	369			75	402		
10	448			43	370			76	403		
11	449			44	371			77	404		
12	450			45	372			78	405		
13	451			46	373			79	406		
14	452			47	374			80	407		
15	453			48	375			81	408		
16	454			49	376			82	409		
17	455			50	377			83	410		
18	456			51	378			84	411		
19	457			52	379			85	412		
20	458			53	380			86	413		
21	459			54	381			87	414		
22	460			55	382			88	415		
23	461			56	383			89	416		
24	462			57	384			90	417		
25	463			58	385			91	418		
26	464			59	386			92	419		
27	465			60	387			93	420		
28	466			61	388			94	421		
29	467			62	389			95	422	↓	↓
30	468			63	390			96	423	X/L	φ
31	469			64	391			97			
32	470	↓	↓	65	392	↓	↓				
33	471	X/L	φ	66	393	X/L	φ				

TABLE VIII. (Continued)

CONSTANT SET 511  
MODEL: 60-0, IH-102

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	340	X/C	Z/BV	34	373	X/C	Z/BV	67	320	X <sub>0</sub>	Y <sub>0</sub>
2	341			35	374			68	321		
3	342			36	375			69	322		
4	343			37	376			70	323		
5	344			38	377			71	325		
6	345			39	378			72	327		
7	346			40	379			73	328		
8	347			41	380			74	329		
9	348			42	381			75	330		✓
10	349			43	382			76	331		Y <sub>0</sub>
11	350			44	383			77	332		Z <sub>0</sub>
12	351			45	384	↓	↓	78	333		Z <sub>0</sub>
13	352			46	385	X/C	Z/BV	79	334		Z <sub>0</sub>
14	353			47	298	X <sub>0</sub>	Y <sub>0</sub>	80	336		Y <sub>0</sub>
15	354			48	299			81	337		Z <sub>0</sub>
16	355			49	300			82	338	↓	Z <sub>0</sub>
17	356			50	301			83	339	X <sub>0</sub>	Z <sub>0</sub>
18	357			51	302			84	249A	X/L	Y <sub>0</sub>
19	358			52	303			85	250A		
20	359			53	304			86	251A		
21	360			54	305			87	252A		
22	361			55	306			88	253A		
23	362			56	308			89	254A		
24	363			57	309			90	255A		
25	364			58	310			91	256A		
26	365			59	311			92	257A		
27	366			60	312			93	258A		
28	367			61	313			94	259A		↓
29	368			62	315			95	260A	↓	Y <sub>0</sub>
30	369			63	316			96	368A	X/L	Z <sub>0</sub>
31	370			64	317			97			
32	371	↓	↓	65	318	↓	↓				
33	372	X/C	Z/BV	66	319	X <sub>0</sub>	Y <sub>0</sub>				

TABLE VIII. (Continued)

CONSTANT SET 522  
MODEL: 60-0, IH-102

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	4	X/L	$\phi$	34	268	X/C	$Y_0$	67	280	X/C	$Y_0$
2	7	X/L	$\phi$	35	466	2Y/B	$X_0$	68	473	2Y/B	$X_0$
3	227	X/L	$\phi$	36	269	X/C	$Y_0$	69	169	X/L	$\phi$
4	246	X/C	Y	37	270	X/C	$Y_0$	70	170		
5	247			38	467	2Y/B	$X_0$	71	171		
6	248			39	478		X/C	72	172		
7	249			40	479			73	173		
8	250			41	480		$\downarrow$	74	174		
9	251	$\downarrow$	$\downarrow$	42	481		X/C	75	175		
10	252	X/C	Y	43	468	$\downarrow$	$X_0$	76	176		
11	460	2Y/B	$X_0$	44	482	2Y/B	X/C	77	177		
12	461	2Y/B	$X_0$	45	271	X/C	$Y_0$	78	178		
13	253	X/C	$Y_0$	46	469	2Y/B	$X_0$	79	179		
14	254			47	483		X/C	80	182		
15	255			48	484			81	183		
16	256			49	485			82	184		
17	257			50	486			83	185		
18	258	$\downarrow$	$\downarrow$	51	487			84	186		
19	259	X/C	$Y_0$	52	488		$\downarrow$	85	187		
20	462	2Y/B	$X_0$	53	489		X/C	86	188		
21	260	X/C	$Y_0$	54	470		$X_0$	87	189		$\downarrow$
22	261	X/C	$Y_0$	55	490	$\downarrow$	$X_0$	88	190		$\phi$
23	463	2Y/B	$X_0$	56	471	2Y/B	$X_0$	89	87A		$Y_0$
24	262	X/C	$Y_0$	57	272	X/C	$Y_0$	90	88A		
25	263	X/C	$Y_0$	58	273	X/C	$Y_0$	91	89A		
26	476	2Y/B	X/C	59	274	X/C	$Y_0$	92	103A		
27	464	2Y/B	X/C	60	491	2Y/B	X/C	93	102A		
28	264	X/C	$Y_0$	61	472	2Y/B	$X_0$	94	261A		
29	465	2Y/B	X/C	62	275	X/C	$Y_0$	95	262A	$\downarrow$	$\downarrow$
30	265	X/C	$Y_0$	63	276			96	263A	X/L	$Y_0$
31	266	X/C	$Y_0$	64	277			97			
32	267	X/C	$Y_0$	65	278	$\downarrow$	$\downarrow$				
33	477	2Y/B	X/C	66	279	X/C	$Y_0$				

TABLE VIII. (Continued)  
 CONSTANT SET 533  
 MODEL: 60-0, IH-102

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	223	X/L	$\phi$	34	198	$Y_0$	$Z_0$	67	404A	X/L	$Y_0$
2	234		$\phi$	35	199			68	410A		
3	388		$Z_0$	36	200			69	156A		
4	224		$\phi$	37	201	$Y_0$		70	155A		
5	235		$\phi$	38	202	X/L		71	36A		
6	389		$Z_0$	39	203			72	160A		
7	225		$\phi$	40	204			73	159A		
8	236		$\phi$	41	205		$\nabla$	74	158A		$\nabla$
9	390		$Z_0$	42	206		$Z_0$	75	157A		$Y_0$
10	226		$\phi$	43	207		$Y_0$	76	320A		$Z_0$
11	237		$\phi$	44	208		$Y_0$	77	321A		
12	391		$Z_0$	45	209		$Z_0$	78	322A		
13	238		$\phi$	46	210		$Z_0$	79	323A		
14	392		$Z_0$	47	211		$Y_0$	80	336A		
15	228		$\phi$	48	212			81	337A		
16	239		$\phi$	49	213			82	338A		
17	393		$Z_0$	50	214			83	339A		
18	229		$\phi$	51	215			84	341A		
19	240		$\phi$	52	216		$\nabla$	85	342A		
20	394		$Z_0$	53	217		$Y_0$	86	343A		$\nabla$
21	230		$\phi$	54	218		$Z_0$	87	344A		$Z_0$
22	241		$\phi$	55	219		$Z_0$	88	37A		$Y_0$
23	395		$Z_0$	56	127A		$Y_0$	89	38A		$Y_0$
24	231		$\phi$	57	126A			90	39A		$Z_0$
25	242	$\nabla$	$\phi$	58	125A			91	45A		$Y_0$
26	396	X/L	$Z_0$	59	124A			92	46A		$Z_0$
27	191	$Y_0$	$Z_0$	60	122A			93	47A		$Y_0$
28	192			61	140A			94	70A		$Y_0$
29	193			62	139A			95	220C	$\nabla$	$Z_0$
30	194			63	408A			96	288C	X/L	$Z_0$
31	195			64	407A			97			
32	196	$\nabla$	$\nabla$	65	406A	$\nabla$	$\nabla$				
33	197	$Y_0$	$Z_0$	66	405A	X/L	$Y_0$				

TABLE VIII. (Continued)

 CONSTANT SET 711  
 MODEL: 60-Ø, OH-105

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	340	X/C	Z/BV	34	373	X/C	Z/BV	67	320	X <sub>0</sub>	Y <sub>0</sub>
2	341			35	374			68	321		
3	342			36	375			69	322		
4	343			37	376			70	323		
5	344			38	377			71	325		
6	345			39	378			72	327		
7	346			40	379			73	328		
8	347			41	380			74	329		
9	348			42	381			75	330		Y
10	349			43	382			76	331		Y <sub>0</sub>
11	350			44	383			77	332		Z <sub>0</sub>
12	351			45	384	↓	↓	78	333		
13	352			46	385	X/C	Z/BV	79	334		↓
14	353			47	298	X <sub>0</sub>	Y <sub>0</sub>	80	335		Z <sub>0</sub>
15	354			48	299			81	336		Y <sub>0</sub>
16	355			49	300			82	337		Z <sub>0</sub>
17	356			50	301			83	338	↓	
18	357			51	302			84	339	X <sub>0</sub>	↓
19	358			52	303			85	368A	X/L	Z <sub>0</sub>
20	359			53	304			86	397C	-	-
21	360			54	305			87	398C	-	-
22	361			55	306			88	399C	-	-
23	362			56	308			89	400C	-	-
24	363			57	309			90	110C	X/C	Y <sub>0</sub>
25	364			58	310			91	111C		
26	365			59	311			92	112C		
27	366			60	312			93	113C		
28	367			61	313			94	114C		
29	368			62	315			95	115C		
30	369			63	316			96	116C	↓	↓
31	370			64	317			97	117C	X/C	Y <sub>0</sub>
32	371	↓	↓	65	318	↓	↓				
33	372	X/C	Z/BV	66	319	X <sub>0</sub>	Y <sub>0</sub>				

TABLE VIII. (Continued)

CONSTANT SET 722

MODEL 60-0, OH-105

Ch No.	IC No.	COORD1	COORD2	Ch No.	IC No.	COORD1	COORD2	Ch No.	IC No.	COORD1	COORD2
1	1	X/L	$\phi$	34	182	X/L	$\phi$	67	88A	X/L	Y
2	2			35	223			68	89A		
3	3	$\nabla$	$\nabla$	36	234			69	103A		
4	4	X/L	$\phi$	37	388			70	102A		
5	120	X/C	Y	38	184			71	127A		
6	121			39	225			72	126A		
7	122			40	236			73	125A		
8	123			41	390			74	124A		
9	253			42	186			75	122A		
10	254			43	188			76	140A		
11	255			44	229			77	139A		
12	256			45	240			78	408A		
13	257			46	394			79	407A		
14	258			47	190			80	406A		
15	259			48	231		$\nabla$	81	405A		
16	260	$\nabla$	$\nabla$	49	242		$\phi$	82	404A		
17	261	X/C	Y	50	279A		Y	83	410A		
18	460	2Y/B	X <sub>0</sub>	51	249A			84	156A		
19	461			52	250A			85	155A		
20	462			53	251A			86	36A		
21	463			54	252A			87	160A		
22	464			55	253A			88	159A		
23	465			56	254A			89	158A		$\nabla$
24	466			57	255A			90	157A		Y
25	467			58	256A			91	320A		Z
26	468			59	257A			92	321A		
27	469			60	258A			93	322A	$\nabla$	$\nabla$
28	470			61	259A			94	323A	X/L	Z
29	471			62	260A			95	118C	X/C	Y
30	274			63	261A			96	119C	X/C	Y
31	472			64	262A			97	288C	X/L	Z
32	277	$\nabla$	$\nabla$	65	263A	$\nabla$	$\nabla$				
33	473	2Y/B	X <sub>0</sub>	66	87A	X/L	Y				



TABLE VIII. (Continued)  
 CONSTANT SET 733  
 MODEL: 60-0, OH-105

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	5	X/L	φ	34	218	X/L	Z	67	70A	X/L	Y
2	6		φ	35	219		Z	68	107A		
3	7		φ	36	23		φ	69	114A		
4	44		Y	37	24			70	115A		
5	202		Z	38	25	↓	↓	71	116A		
6	203		↓	39	26	X/L	φ	72	117A		
7	204		↓	40	191	Y	Z	73	118A		
8	205		Z	41	192			74	130A		
9	8		φ	42	193			75	131A		
10	206		Z	43	194			76	132A		
11	9		φ	44	195			77	133A		
12	10		↓	45	196			78	134A		↓
13	11		↓	46	197			79	135A		Y
14	12		φ	47	198			80	220C		Z
15	45		Y	48	199			81	27C		φ
16	207		Y	49	200	↓	↓	82	28C		φ
17	208		Y	50	201	Y	Z	83	50C		Y
18	209		Z	51	164	X/C	Y	84	62C		Y
19	13		φ	52	165			85	29C		φ
20	14		↓	53	166			86	30C		φ
21	15		↓	54	167	↓	↓	87	51C		Y
22	16		φ	55	168	X/C	Y	88	63C		Y
23	211		Y	56	18	X/L	φ	89	31C		φ
24	212		↓	57	278	X/C	Y	90	32C		φ
25	213		↓	58	279	X/C		91	52C		Y
26	214		Y	59	280	X/C		92	64C		Y
27	21		φ	60	37A	X/L	↓	93	33C		φ
28	17		φ	61	38A		Y	94	34C		φ
29	48		Y	62	39A		Z	95	53C		Y
30	19		φ	63	45A		Y	96	65C	↓	Y
31	215		Y	64	46A		Z	97	35C	X/L	φ
32	216	↓	Y	65	47A	↓	Y				
33	217	X/L	Y	66	65A	X/L	Y				

TABLE VIII. (Continued)

CONSTANT SET 811  
MODEL: 60-0, OH-105

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	276	X/C	$Y_0$	34	132	X/C	$Y_0$	67	191A	X/L	$Y_0$
2	40	X/L	$\phi$	35	139			68	192A		$Z_0$
3	41			36	140			69	193A		$Z_0$
4	42			37	142			70	194A		$Z_0$
5	43		$\phi_0$	38	143			71	22C		$\phi$
6	57		$Y_0$	39	144			72	36C		
7	58			40	147			73	37C		
8	59			41	148			74	38C		$\downarrow$
9	60			42	150			75	39C		$\phi$
10	69			43	151			76	54C		$Y_0$
11	70			44	152			77	55C		
12	71		$\downarrow$	45	153			78	56C		
13	72	$\downarrow$	$Y_0$	46	154			79	66C		
14	20	X/L	$\phi$	47	156			80	67C	$\downarrow$	
15	251	X/C	$Y_0$	48	158			81	68C	X/L	
16	252			49	159			82	77C	X/C	
17	264			50	162	$\downarrow$	$\downarrow$	83	78C		
18	269	$\downarrow$	$\downarrow$	51	163	X/C	$Y_0$	84	79C		
19	270	X/C	$Y_0$	52	41A	X/L	$Z_0$	85	80C		
20	482	2Y/B	$X_0$	53	186A		$Y_0$	86	81C		
21	271	X/C	$Y_0$	54	187A			87	82C		
22	483	2Y/B	$X_0$	55	188A			88	90C		
23	484		X/C	56	189A		$\downarrow$	89	91C		
24	485		X/C	57	196A		$Y_0$	90	92C		
25	490	$\downarrow$	$X_0$	58	336A		$Z_0$	91	93C		
26	491	2Y/B	X/C	59	337A			92	94C		
27	83	X/C	$Y_0$	60	338A			93	105C		
28	84			61	339A			94	106C		
29	95			62	341A			95	141C		
30	96			63	342A			96	155C	$\downarrow$	$\downarrow$
31	97			64	343A		$\downarrow$	97	157C	X/C	$Y_0$
32	107	$\downarrow$	$\downarrow$	65	344A	$\downarrow$	$Z_0$				
33	131	X/C	$Y_0$	66	113A	X/L	$Y_0$				

TABLE VIII. (Continued)

CONSTANT SET 911  
MODEL: 83-0, OH-105

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	177	RAY	LINE	34	210	RAY	LINE	67	166	X/L	Z <sub>0</sub>
2	178			35	211			68	167		
3	179			36	212			69	168		
4	180			37	213			70	169		
5	181			38	214			71	170		
6	182			39	215			72	171		
7	183			40	216			73	172		
8	184			41	217			74	173		
9	185			42	218			75	174		
10	186			43	219			76	175		↓
11	187			44	220			77	176		Z <sub>0</sub>
12	188			45	221			78	379		φ
13	189			46	222	↓	↓	79	380		
14	190			47	223	RAY	LINE	80	381		
15	191			48	224	X/L	Y <sub>0</sub>	81	382		
16	192			49	225			82	383		
17	193			50	226			83	384		
18	194			51	227			84	385		
19	195			52	228			85	386		
20	196			53	229			86	387		
21	197			54	230			87	388		
22	198			55	231			88	389		
23	199			56	232			89	390		
24	200			57	233			90	391		
25	201			58	234			91	392		
26	202			59	235			92	393		
27	203			60	236			93	394		
28	204			61	237		Y <sub>0</sub>	94	395		
29	205			62	161		Z <sub>0</sub>	95	396		
30	206			63	162			96	397	↓	↓
31	207			64	163			97	398	X/L	φ
32	208	↓	↓	65	164	↓	↓				
33	209	RAY	LINE	66	165	X/L	Z <sub>0</sub>				

TABLE VIII. (Concluded)

CONSTANT SET 922  
MODEL: 83-0, OH-105

Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2	Ch No.	TC No.	COORD1	COORD2
1	399	X/L	$\phi$	34	288	X/L	$\phi$	67	451	X/L	$\phi$
2	400			35	289			68	452		
3	401			36	290			69	453		
4	402			37	291			70	454		
5	403			38	292			71	455		
6	404			39	293			72	456		
7	405			40	294			73	457		
8	406			41	426			74	458		
9	407			42	427			75	459		
10	408			43	428			76	460		
11	409			44	429			77	461		
12	410			45	430			78	462		
13	411			46	431			79	463		
14	412			47	432			80	464		
15	413			48	433			81	465		
16	414			49	434			82	466		
17	415			50	435			83	467		
18	416			51	436			84	468		
19	273			52	437			85	469		
20	274			53	438			86	470		
21	275			54	439			87	471		
22	276			55	440			88	472		$\downarrow$
23	277			56	441			89	473		$\phi$
24	278			57	442			90	303		-
25	279			58	443			91	474		$\phi$
26	280			59	444			92	475		$\phi$
27	281			60	445			93	476		$\phi$
28	282			61	446			94	296		-
29	283			62	447			95	298		
30	284			63	448		$\downarrow$	96	299	$\downarrow$	$\downarrow$
31	285			64	449		$\phi$	97	300	X/L	-
32	286	$\downarrow$	$\downarrow$	65	297	$\downarrow$	-				
33	287	X/L	$\phi$	66	450	X/L	$\phi$				

TABLE IX. 60-Ø MODEL LOCAL SURFACE DEFLECTION ANGLES

T/C NO	$\epsilon$ , DEG	T/C NO	$\epsilon$ , DEG	T/C NO	$\epsilon$ , DEG	T/C NO	$\epsilon$ , DEG
1	90	21	2.0	41	-4.5	70	-4.5
2	50	22 C	1.4	42	-4.5	71	-4.5
3	35.5	23	1.0	43	-4.5	72	-4.5
4	23.0	24	↓				
5	17.7	25		50 C	1.0	73 C	90.0
6	14.4	26		51 C	↓	74 C	8.0
7	12.0	27 C		52 C		75 C	6.75
8	10.3	28 C		53 C		76 C	4.6
9	8.6	29 C		54 C		77 C	3.25
10	7.3	30 C		55 C		78 C	2.75
11	6.4	31 C				79 C	1.0
12	5.5	32 C		61 C	1.0	80 C	1.1
13	4.3	33 C		62 C	↓	81 C	0.75
14	3.9	34 C	1.0	63 C		82 C	-0.5
15	3.6	35 C	-1.5	64 C		83	-5.7
16	3.4	36 C	-2.0	65 C		84	-8.0
17	3.1	37 C	-2.6	66 C	-2.0		
18	2.8	38 C	-3.2	67 C	-3.2		
19	2.6	39 C	-3.8	68 C	-3.8		
20	2.3	40	-4.5	69	-4.5		

TABLE IX. Concluded

T/c NO	E, DEG	T/c NO	E, DEG	T/c NO	E, DEG	T/c NO	E, DEG
86 C	90.0	106 C	0.6	127 C	4.5	148	-7.25
87 C	12.5	108 C	90.0	128 C	2.25	149	90.0
88 C	6.9	109 C	90.0	129 C	1.2	150	2.5
89 C	2.5	110 C	16.75	130 C	1.2	151	2.0
90 C	1.1	111 C	10.5	131	1.0	152	90.0
91 C	1.0	112 C	6.25	132	-7.5	153	3.75
92 C	1.6	113 C	4.0	133	90.0	154	3.0
93 C	1.1	114 C	1.5	134	18.0	155 C	2.25
94 C	0.2	115 C	1.5	135	9.0	157 C	1.75
95	-3.5	116 C	1.75	136	4.5	158	-3.0
96	-7.5	117 C	1.1	137	2.1	159	-7.75
97	-9.25	118 C	1.0	138	1.6	160	90.0
98 C	90.0	119 C	-0.5	139	1.5	161	8.5
99 C	90.0	120	-3.5	141 C	1.0	162	5.0
100 C	11.2	121	-4.6	142	-3.4	163	2.5
101 C	5.0	122	-8.0	143	-7.4	164	2.0
102 C	2.0	123	-9.25	144	-8.9	165	1.5
103 C	1.5	124 C	90.0	145	90.0	166	-0.5
104 C	1.25	125 C	90.0	146	2.0	167	-4.5
105 C	1.0	126 C	17.5	147	1.75	168	-7.5

TABLE X.  
83-Ø MODEL LOCAL SURFACE DEFLECTION ANGLES

T/C NO	E, DEG	T/C NO	E, DEG
273	89.0	274	1.0
274	85.0	275	1.0
275	75.0		
276	43.0		
277	35.5		
279	23.0		
280	21.0		
281	20.0		
282	17.7		
283	16.5		
284	15.1		
285	14.1		
286	13.5		
287	12.0		
288	5.0		
289	3.4		
290	2.0		
291	1.0		
292	1.0		
293	1.0		

TABLE XI PLOTTED THERMOCOUPLES

Test: OH-P48, OH-105 Model: 60-0 (Baise String)

Set 111, 711			Con Set 122, 722			Con. Set 133, 733		
WING PAD - SW. POS. 1			WING UPPER SURF. SW. POS. 2			FUS. LOWER & - SW. POS. 3		
T/C NO.	X/L	TRACE	T/C NO.	27/6	X.	T/C NO.	X/L	
298	0.843	1	460	0.50	1373.54	5	0.03	
308	.881		461	.55		6	.04	
315	.920		462	.60		7	.05	
320	.939	↓	463	.65		8	.06	
			464	.70		9	.07	
302	0.862	2	465	.725		10	.08	
309	.881		466	.75		11	.09	
316	.920		467	.775		12	.10	
321	.939		468	.80		13	.12	
327	.978	↓	469	.825		14	.13	
			470	.85		15	.14	
303	0.862	3	471	.875		16	.15	
310	.881		274	.90		18	.17	
317	.920		472	.925		21	.20	
322	.939		277	.95		23	.25	
328	.978	↓	473	.975	↓	24	.30	
						25	.35	
299	0.843	4				26	.40	
304	.862					27C	.45	
311	.881					28C	.50	
318	.920					29C	.55	
323	.939					30C	.60	
329	.978	↓				31C	.65	
						32C	.70	
300	0.843	5				33C	.75	
305	.862					34C	.80	
312	.881					35C	.90	
319	.920							
330	.978	↓				19	.18	
						17	.16	
301	0.843	6						
306	.862							
313	.901							
325	.939							
331	.978	↓						



TABLE XI. Continued

Test: OH-84B

Model: 60-0 (0 feet string)

[illegible]

TABLE XI. Continued  
 Test: IH-102 Model: 56-0

Con. Set 311.

TRACE NO.	FUSELAGE SIDE			TRACE NO.	FUSELAGE SIDE		
	T/C	X/L	Z <sub>0</sub>		T/C	X/L	Z <sub>0</sub>
1 ↓	1	.275	437.5	3 ↓	31	.200	400.0
	2	.300	442.0		32	.225	
	3	.325	445.0		33	.250	
	4	.350			34	.275	
	5	.375			35	.300	
	6	.40			36	.325	
	7	.425			37	.350	
	8	.45			38	.375	
	9	.475			39	.400	
	10	.50			40	.425	
	11	.525			41	.450	
	12	.550			42	.475	
	13	.600			43	.500	
	14	.650			44	.525	
	15	.700			45	.550	
	16	.750			46	.600	
	17	.800			47	.650	
2 ↓	18	.285	420.0	↓	48	.700	
	19	.337			49	.750	
	20	.390			50	.800	
	21	.426			51	.850	
	22	.478			52	.875	
	23	.530			53	.900	
	24	.557			54	.925	
	25	.620			55	.950	
	26	.670					
	27	.705					
	28	.750					
	29	.800					
	30	.824					

TABLE XI. Continued

Test: IH-102 Model: 56-0

Con. Set. 311

TRACE NO.	FUSELAGE SIDE		
	T/C	X/L	Z <sub>0</sub>
4 ↓	56	.300	372.5 ↓
	57	.325	
	58	.350	
	59	.375	
	60	.400	
	61	.425	
	62	.450	
	63	.475	
	64	.500	
	65	.525	
	66	.550	
	67	.600	
	68	.650	
	69	.700	
	70	.750	
5 ↓	71	.200	355.0 ↓
	72	.225	
	73	.250	
	74	.275	
	75	.800	
	76	.850	
	77	.875	
	78	.900	
	79	.925	
	80	.950	

TABLE XI. Continued

Test: IH-102

Model: P3-0

Cor. Set 411

Cor. Set 422

X<sub>0</sub>=270 X-SECTION - SW. POS. 1

UPPER E - SW. POS. 2

UPPER E CONT. - SW. POS. 2

T/C NO.	θ (DEG.)	T/C NO.	X/L	T/C NO.	X/L
427	343	367	0.000	404	0.170
428	335	368	.001	405	.172
429	324	369	.002	406	.175
430	320	370	.004	407	.177
431	310	371	.006	408	.180
432	303	372	.009	409	.183
433	295	373	.012	410	.187
434	287.5	374	.015	411	.190
435	280	375	.018	412	.194
436	273	376	.022	413	.198
		377	.025	414	.205
		378	.028	415	.226
		379	.061	416	.251
		380	.065	417	.276
		381	.069	418	.301
		382	.072	419	.326
		383	.076	420	.351
		384	.080	421	.376
		385	.095	422	.401
		386	.099	423	.426
		387	.102		
		388	.116		
		389	.120		
		390	.123		
		391	.127		
		392	.131		
		393	.134		
		394	.138		
		395	.141		
		396	.145		
		397	.149		
		398	.152		
		399	.156		
		400	.159		
		401	.161		
		402	.164		
		403	.167		

TABLE XI. Continued

Test: IH-102

Model: 60-0

Con. Set 511			Con. Set 522			Con. Set 533		
OMS POD - SW. POS. 1			TOP Q - SW. POS. 2			LOWER SIDE AT ELEVON GAP - SW. POS. 3		
T/C NO.	X/L	TRACE	T/C NO.	X/L		T/C NO.	X/L	Z.
298	0.843	1	169	0.010		320A	0.906	318.0
308	.881		170	.025		321A	.921	
315	.920		171	.050		322A	.946	
320	.939	↑	172	.075		323A	.971	↑
			173	.100				
302	0.862	2	174	.125		336A	0.906	280
309	.881		175	.150		337A	.921	
316	.920		176	.160		338A	.948	
321	.939		177	.170		339A	.923	↑
327	.978	↑	178	.180				
			179	.200		341A	0.906	268
303	0.862	3	182	.40		342A	.921	↑
310	.881		183	.45		343A	.946	270
317	.920		184	.50		344A	.973	272
322	.939		185	.55				
328	.978	↑	186	.60				
			187	.65				
299	0.843	4	188	.70				
304	.862		189	.75				
311	.881		190	.80				
318	.920							
323	.939							
329	.978	↑						
300	.843	5						
305	.862							
312	.881							
319	.920							
330	.978	↑						
301	0.843	6						
306	.862							
313	.901							
325	.939							
331	.978	↑						

TABLE XI. Continued

Test: OH-105

Model: 60-0 (Base String)

Con. Set 811

[illegible]

TABLE VI Concluded

Test: OH-105

Model: 83-0

Con Set 911

Con. Set 922

UPPER E - SW. Pos. 1

LOWER E - SW. POS. 2

[illegible]

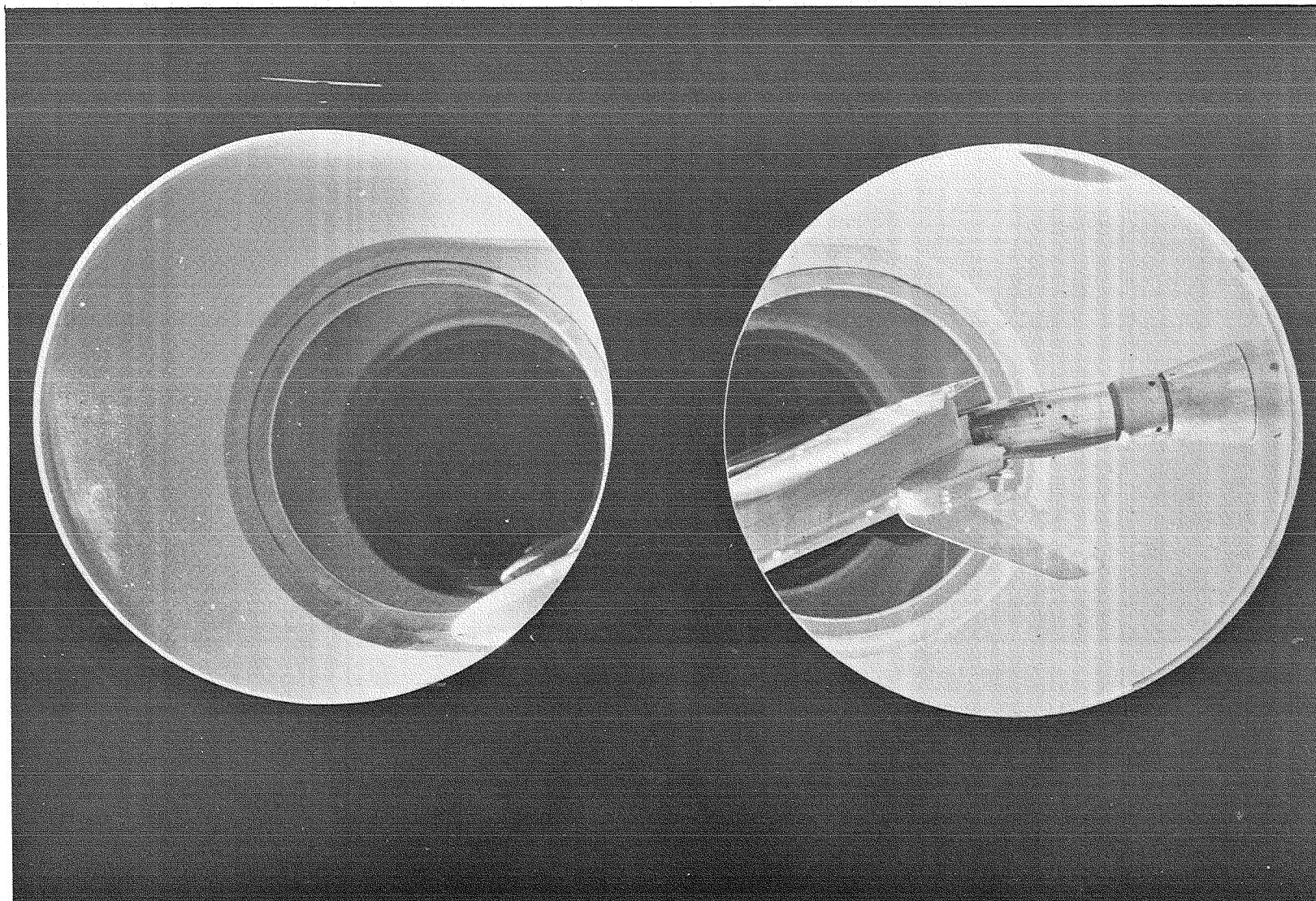


Figure 1. Model 60-0 Installed in VKF Tunnel B  
(Model Shown Inverted)



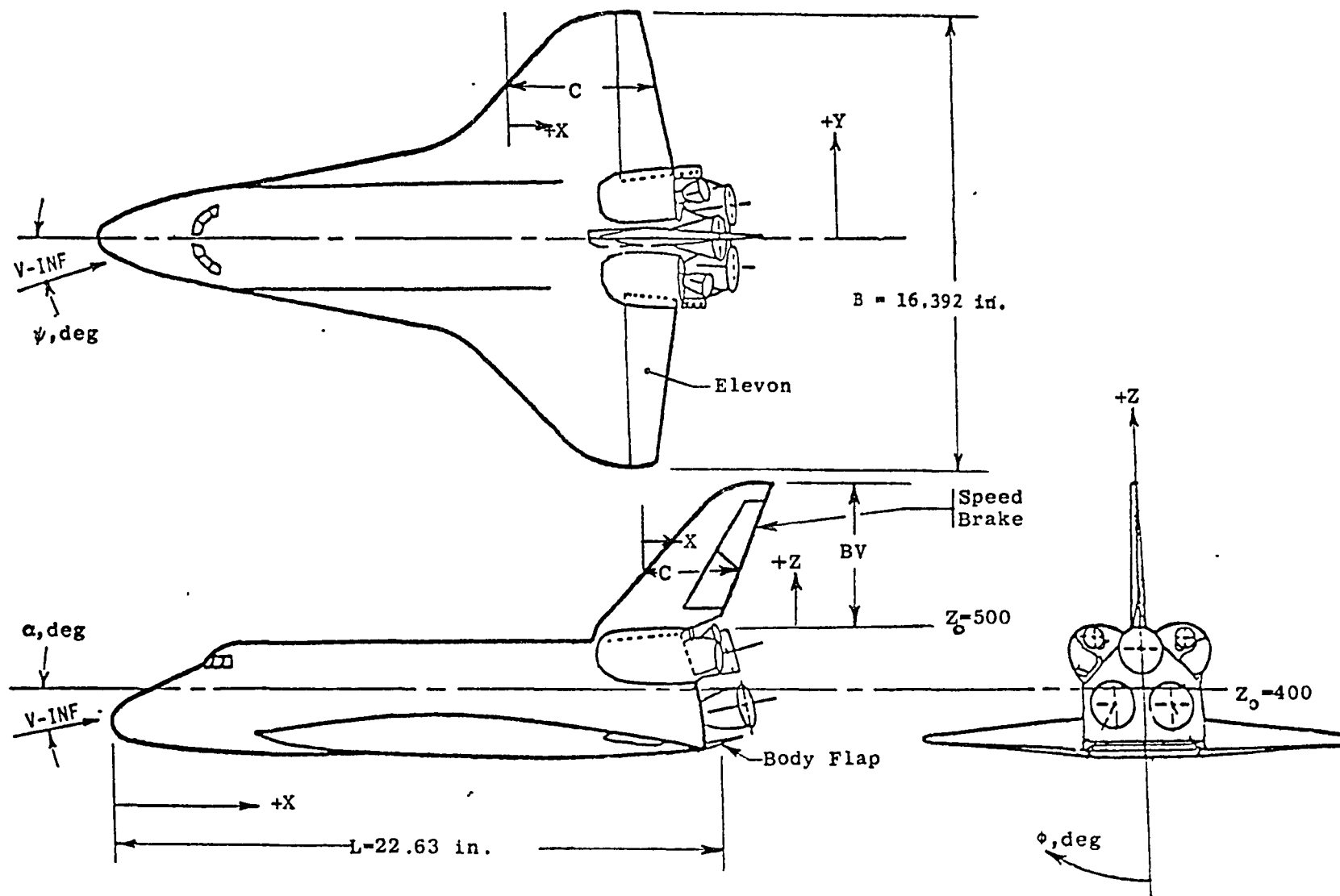


Figure 2. Sketch of the 0.0175-Scale Space Shuttle Orbiter Models

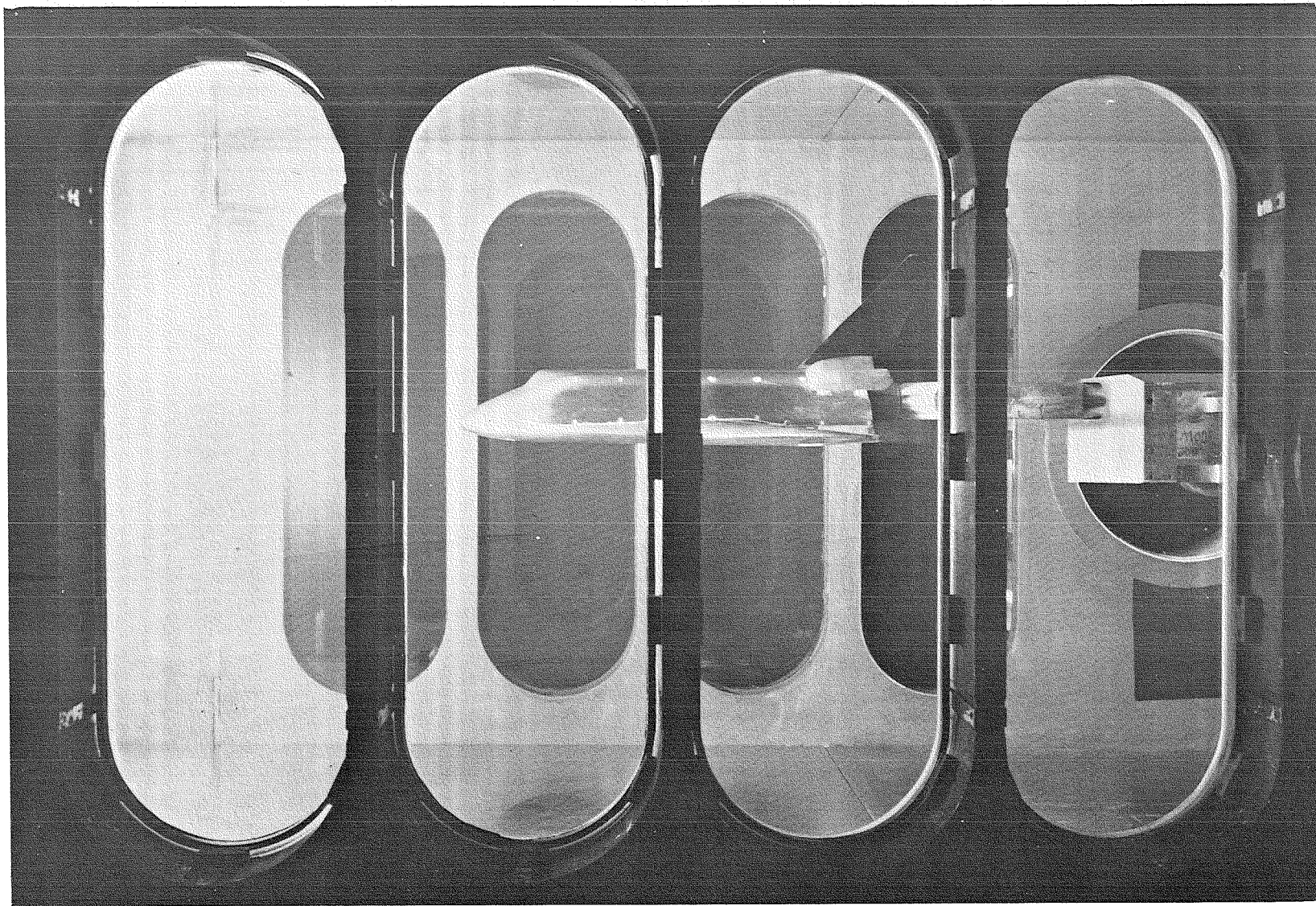


Figure 3. Model 56-0 Installed in VKF Tunnel A

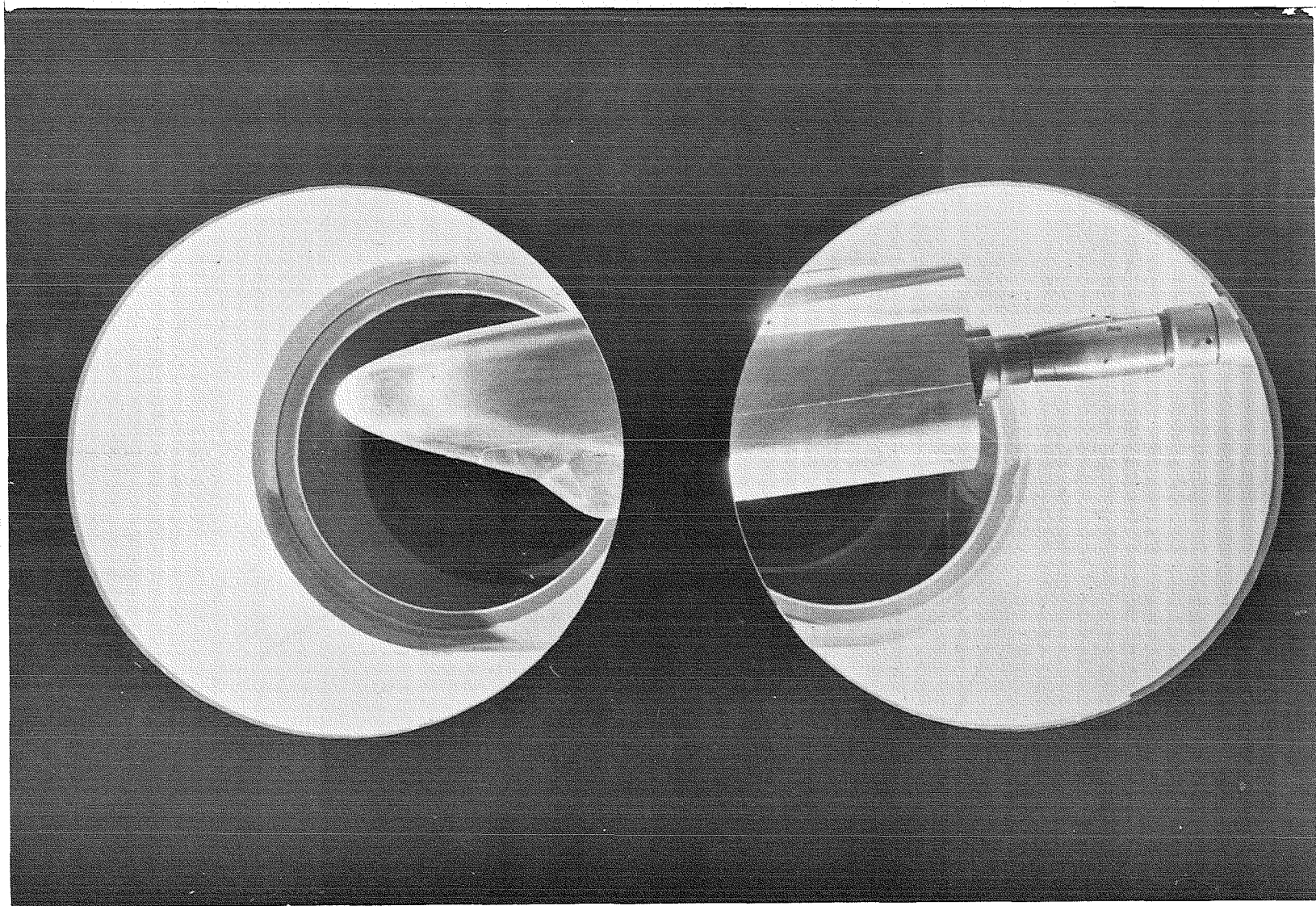


Figure 4. Model 83-0 Installed in VKF Tunnel B  
(Model Shown Inverted)

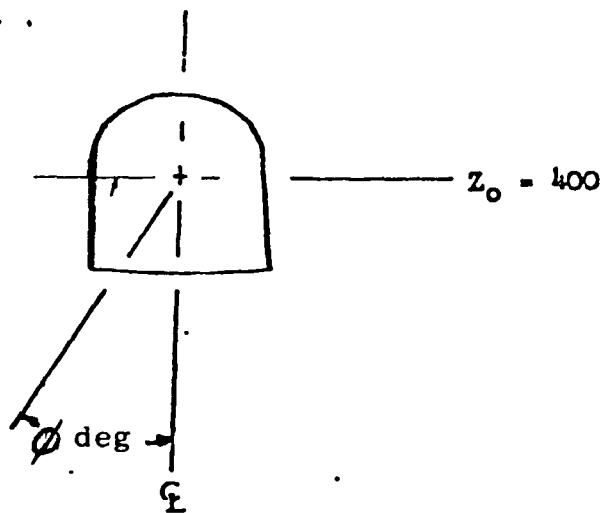
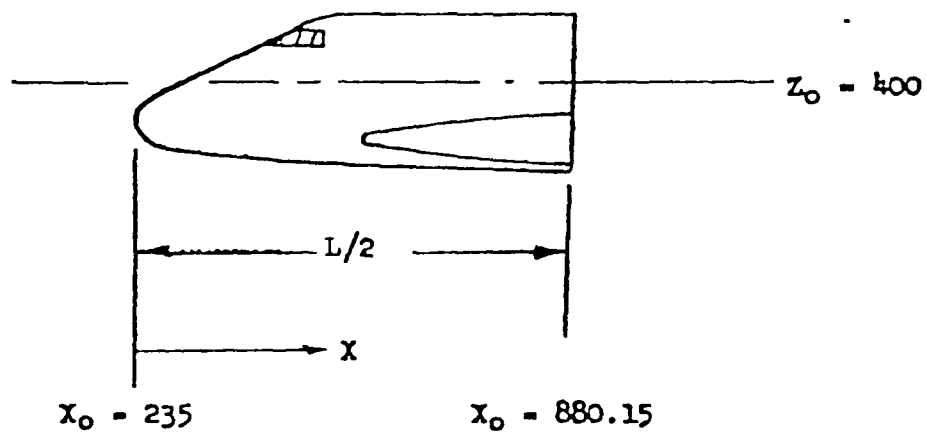


Figure 5. Sketch of 83-0 Model Coordinate System

# 50-INCH HYPERSONIC TUNNELS B&C

SCALE-1/3

TUNNEL WALL

MAX FWD PT  
STA 69 673

FWD C R  
STA 59 673

STA 55 923

NOM C R  
STA 45 673

STA 35 423

AFT C R  
STA 29 673

ROLL HUB  
STA 0 00

1 06-2-11-052

1 06-2-02-008

1 06-2-32-010

1 06-2-32-008

1 06-2-31-021

1 10-2-22-003

$\alpha = 20^\circ$

$\alpha = 40^\circ$

CR=60

NASA/RI ON-84 B (V91B-67)

BASE STING  
60-4 MODEL

TUNNEL WALL

$\alpha = -37^\circ$

a. Configuration Code 10

Fig. 6 Installation Sketches of Model Configurations

50-INCH HYPERSONIC TUNNELS 38C

SCALE-1/3

TUNNEL WALL

MAX FWD PT  
STA 69 673

FWD C R  
STA 59 673

STA 55 923

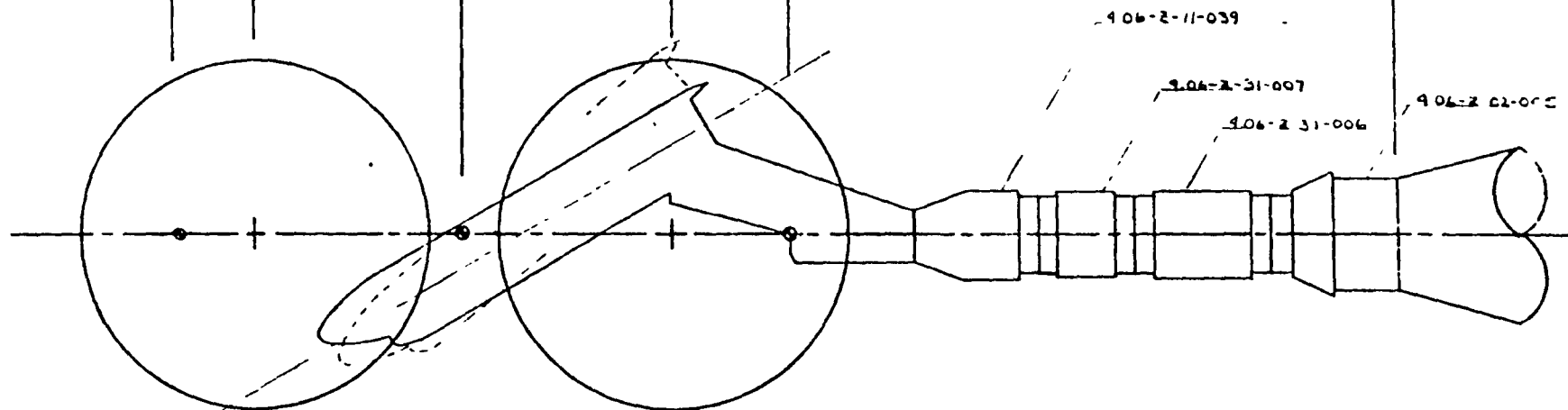
NOM C R  
STA 45 673

STA 35 423

AFT C R  
STA 29 673

ROLL HUB  
STA 0 00

130



NASA/RI OHB9B (V91B-67)

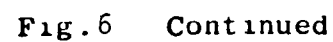
60- $\phi$   
OFFSET STING

TUNNEL WALL

b. Configuration Code 20

Fig. 6 Continued

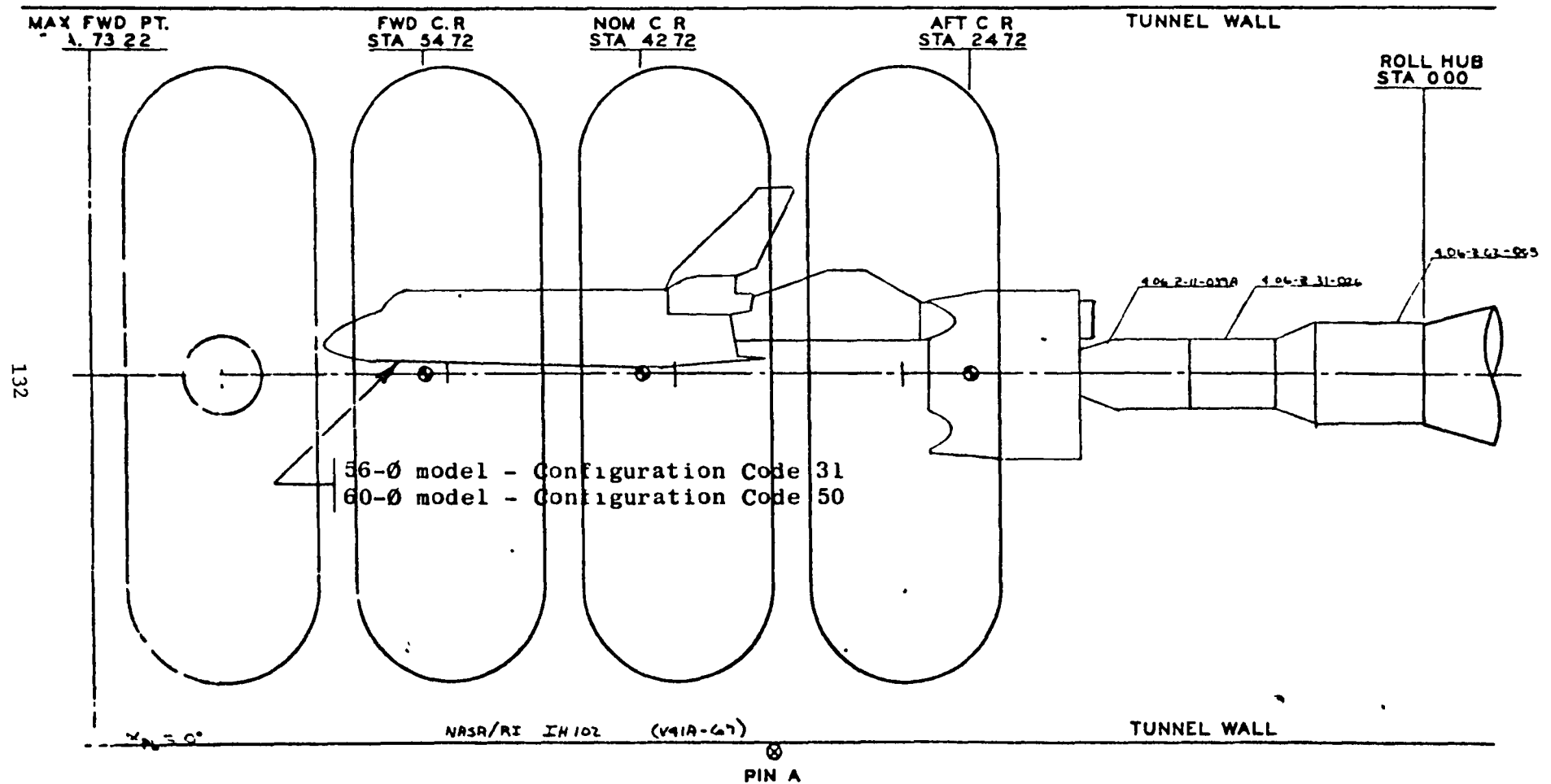
Scale - 1/5





# 40-INCH SUPERSONIC TUNNEL A

SCALE - 1/5



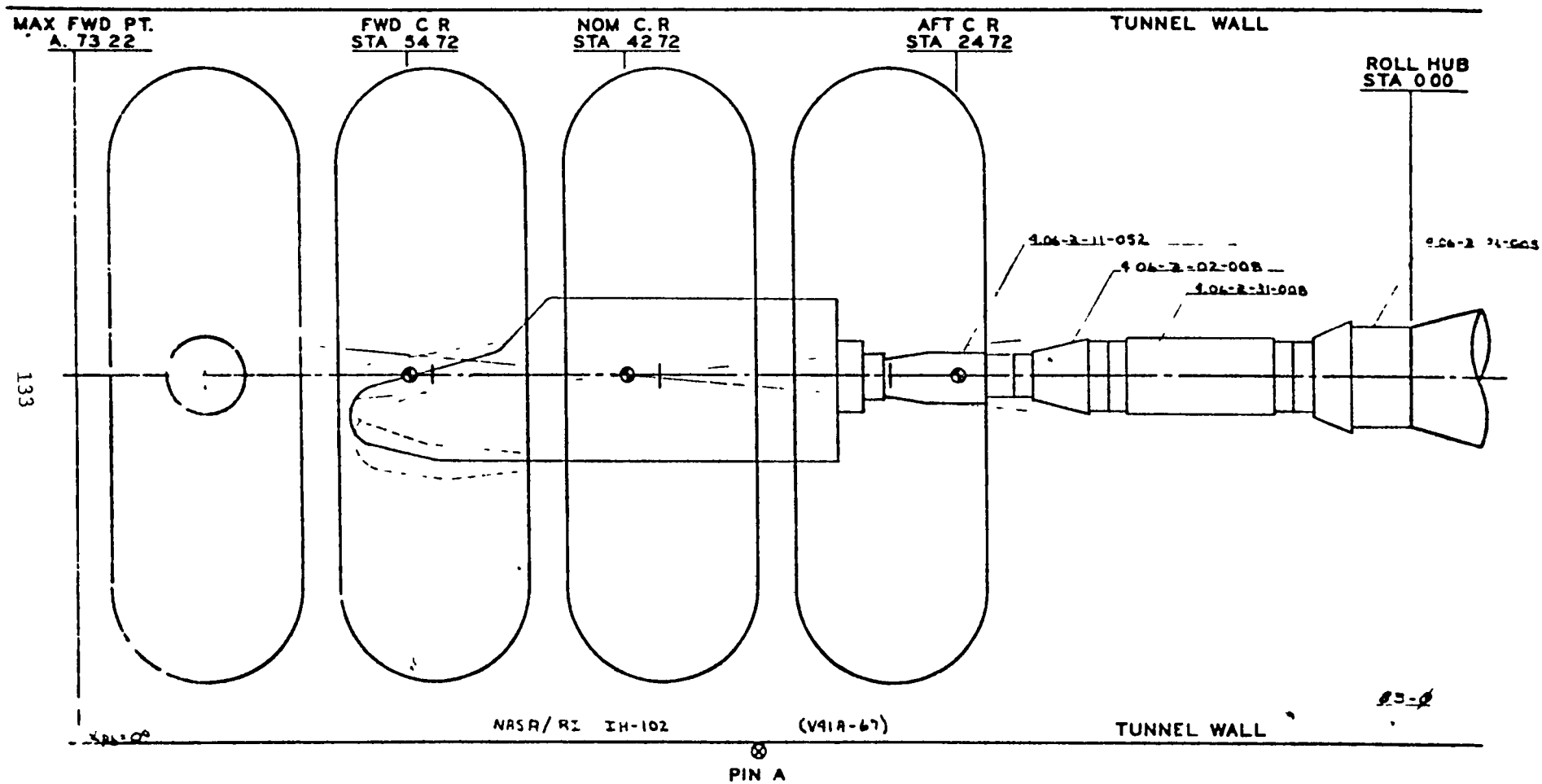
d. Configuration Codes 31 and 50

Fig. 6 Continued



## 40-INCH SUPERSONIC TUNNEL A

**SCALE - 1/5**



e. Configuration Code 40

Fig. 6 Continued



# 50-INCH HYPERSONIC TUNNELS B & C

SCALE-1/3

TUNNEL WALL

MAX FWD PT  
STA 69 673

FWD C R  
STA 39 673

STA 35 923

NOM C R  
STA 45 673

STA 35 423

AFT C R  
STA 29 673

ROLL HUB  
STA 0 00

$\alpha = 0^\circ$

$\alpha = 20^\circ$

9.06-2-11-052

9.06-2-02-008

9.06-2-32-010

9.06-2-32-008

9.06-2-31-031

9.10-2-22-003

C.R.

NRSA/RI OH-105 (V41B-67)

60-# MODEL

TUNNEL WALL

g. Configuration Code 70

Fig. 6 Continued

# 50-INCH HYPERSONIC TUNNELS B&C

SCALE-1/3

TUNNEL WALL

MAX FWD PT  
STA 69 673

FWD C R  
STA 59 673

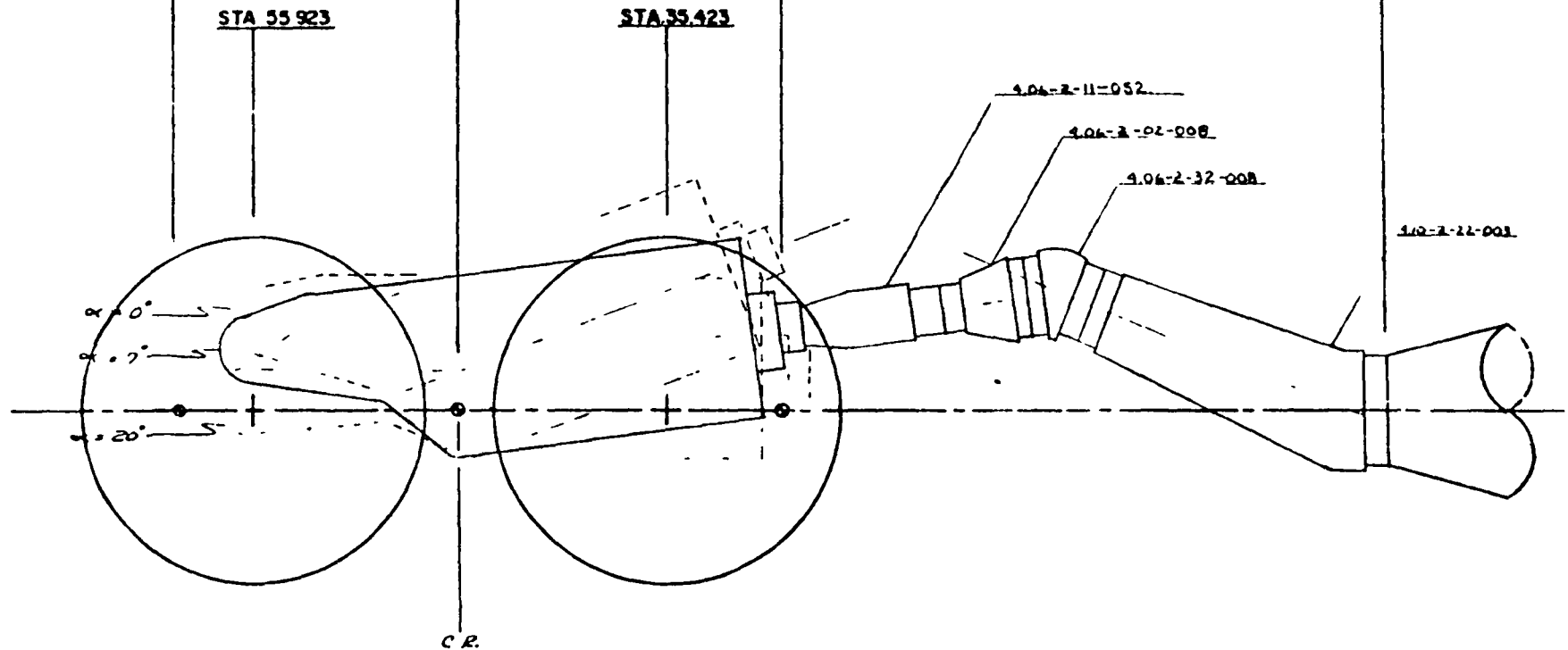
STA 55 923

NOM C R  
STA 45 673

STA 35 423

AFT C R  
STA 29 673

ROLL HUB  
STA 0 00



NASA/RI IH 102

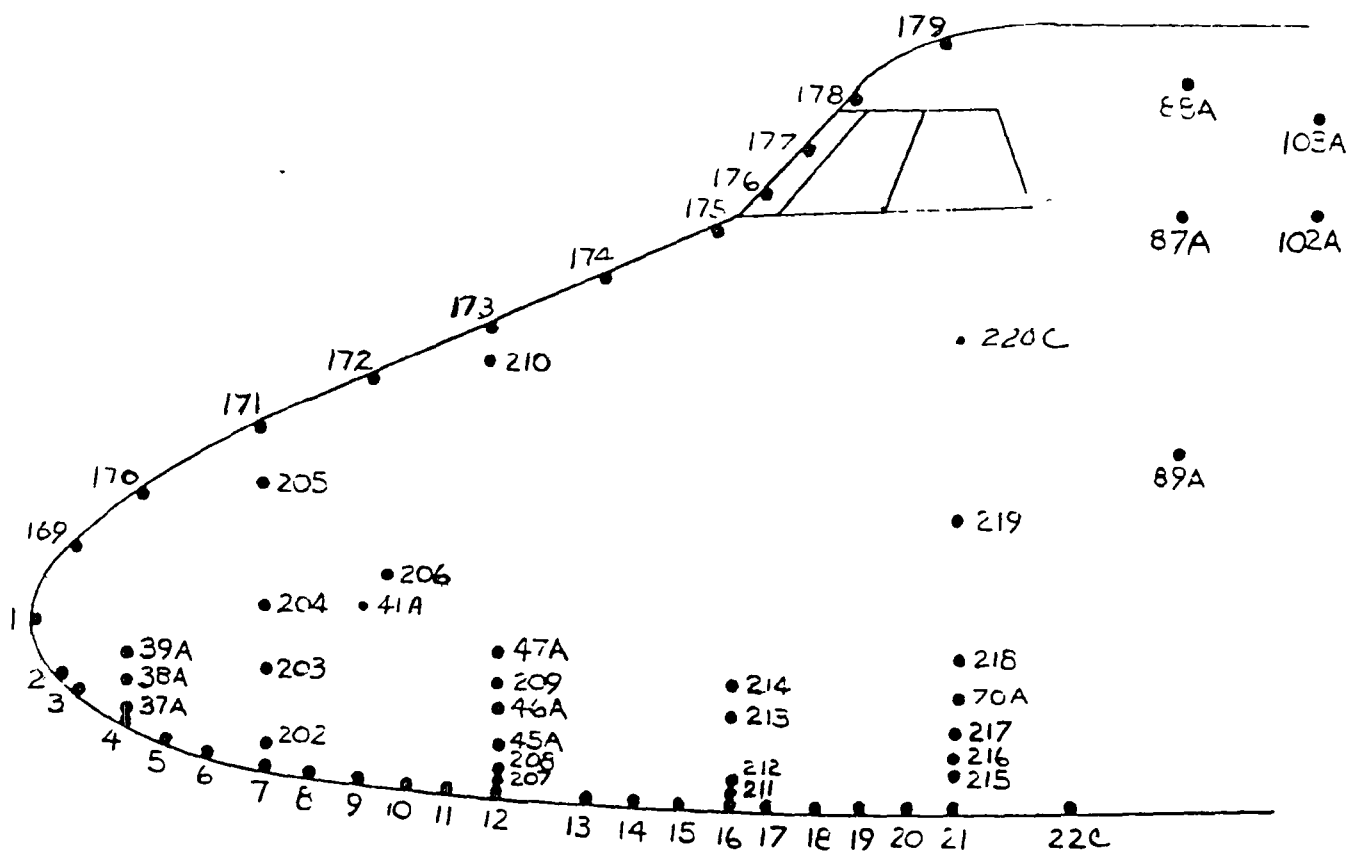
(V41B-67)

TUNNEL WALL

83-0

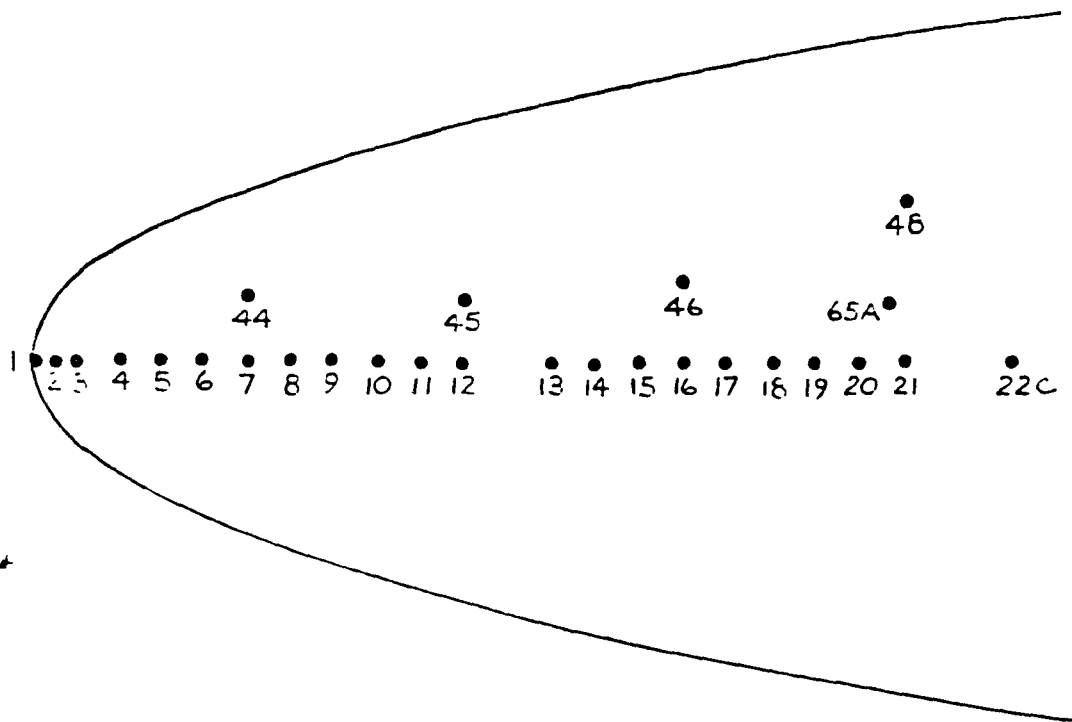
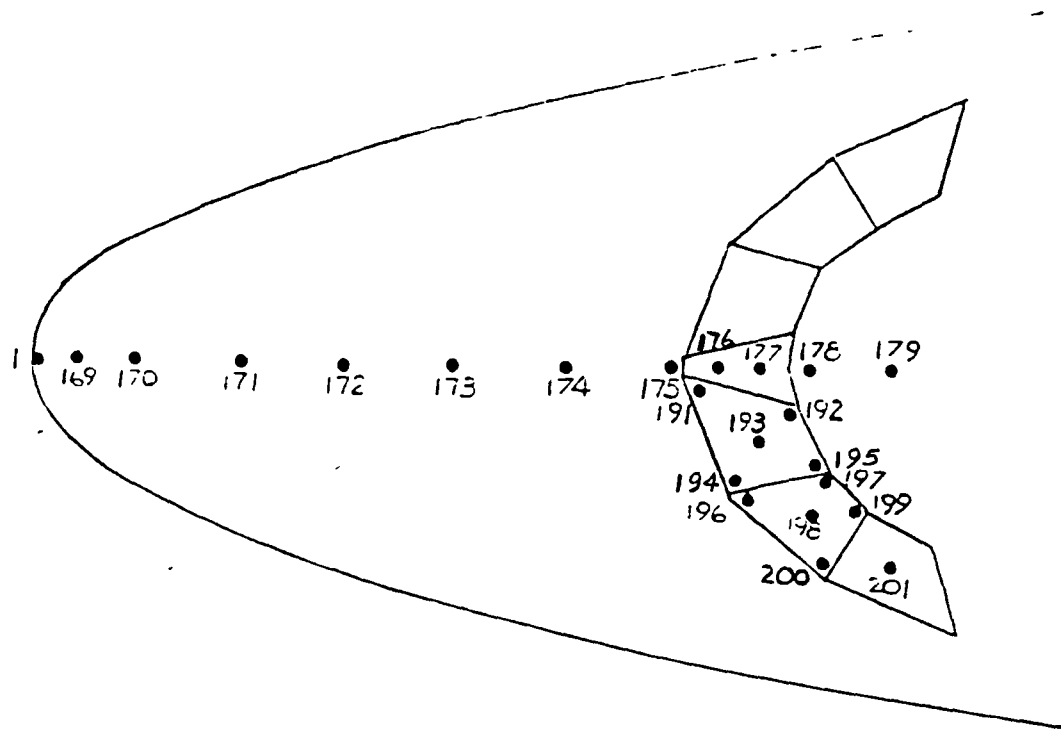
h. Configuration Code 80

Fig. 6 Concluded

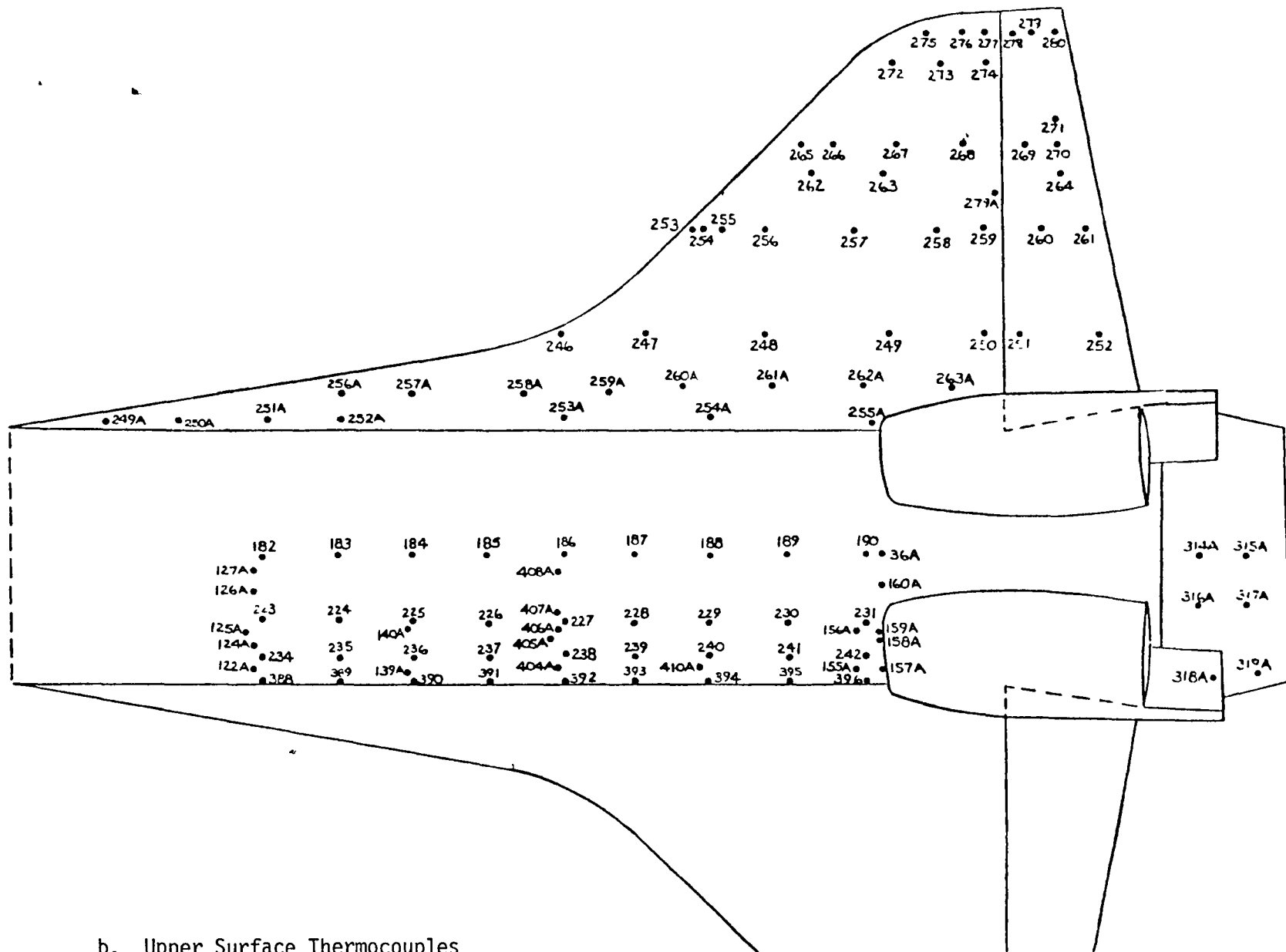


a. Nose and Canopy

Fig. 7 Thermocouple Locations on 60-Ø Model

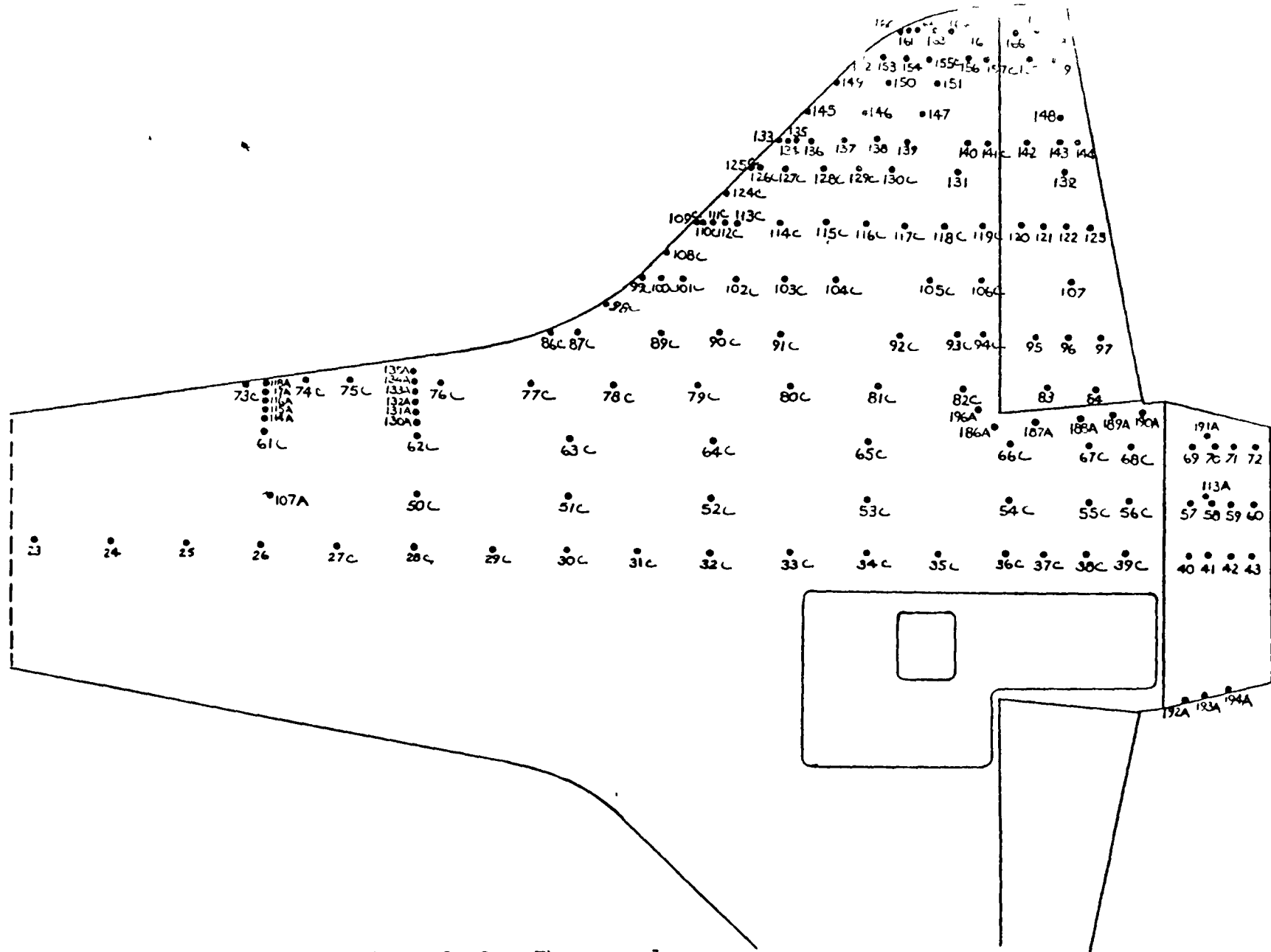


a. Nose and Canopy (Concluded)



b. Upper Surface Thermocouples

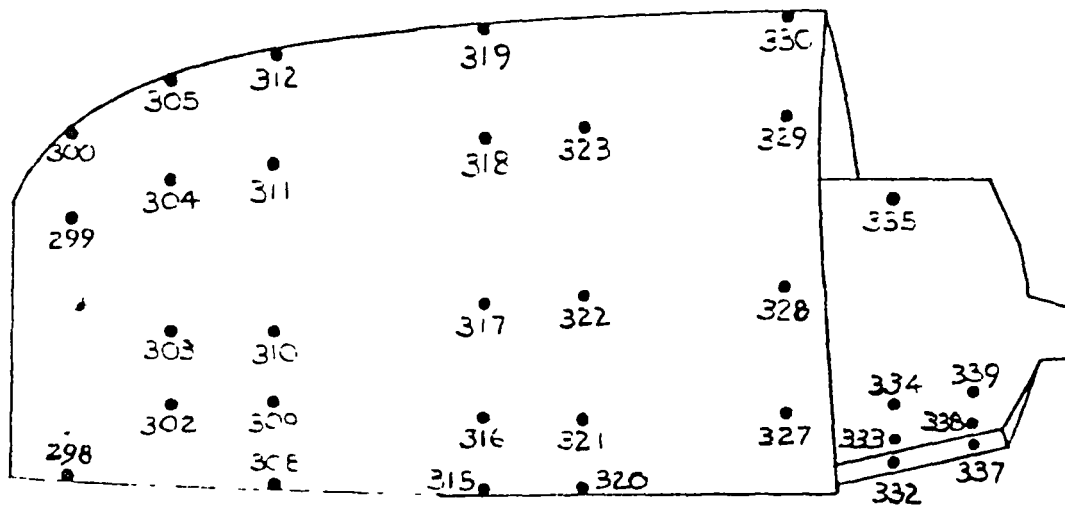
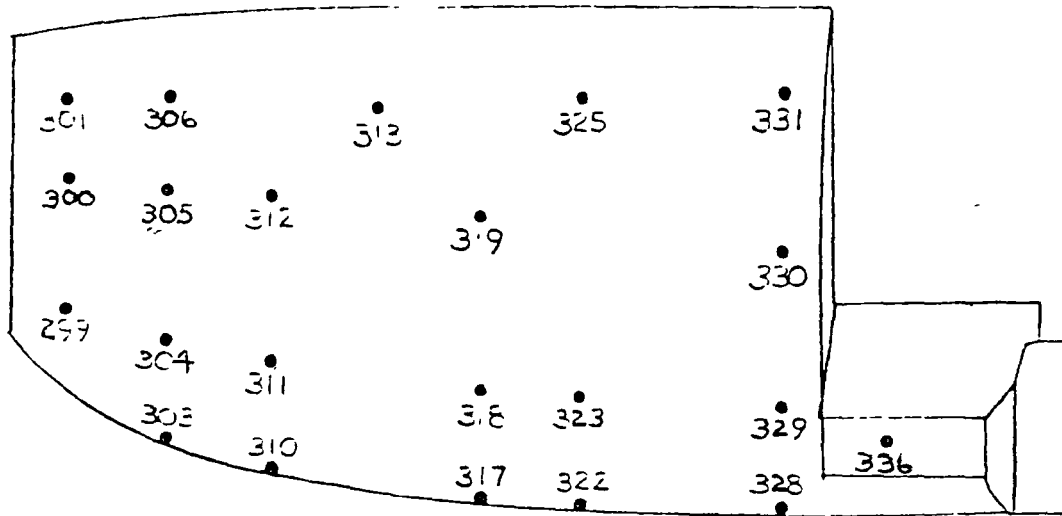
Fig. 7. Continued



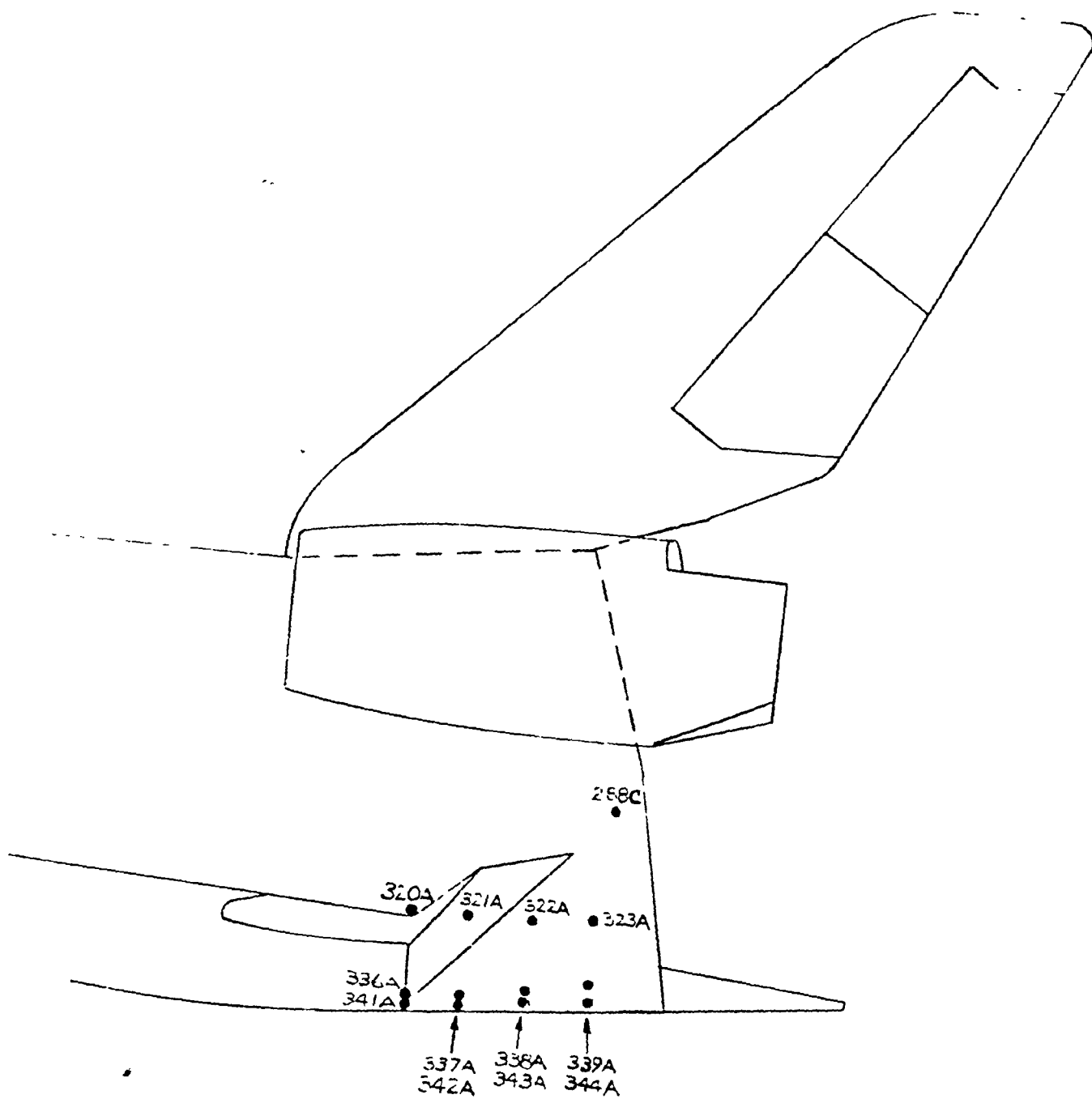
c. Lower Surface Thermocouples

Fig. 7 Continued

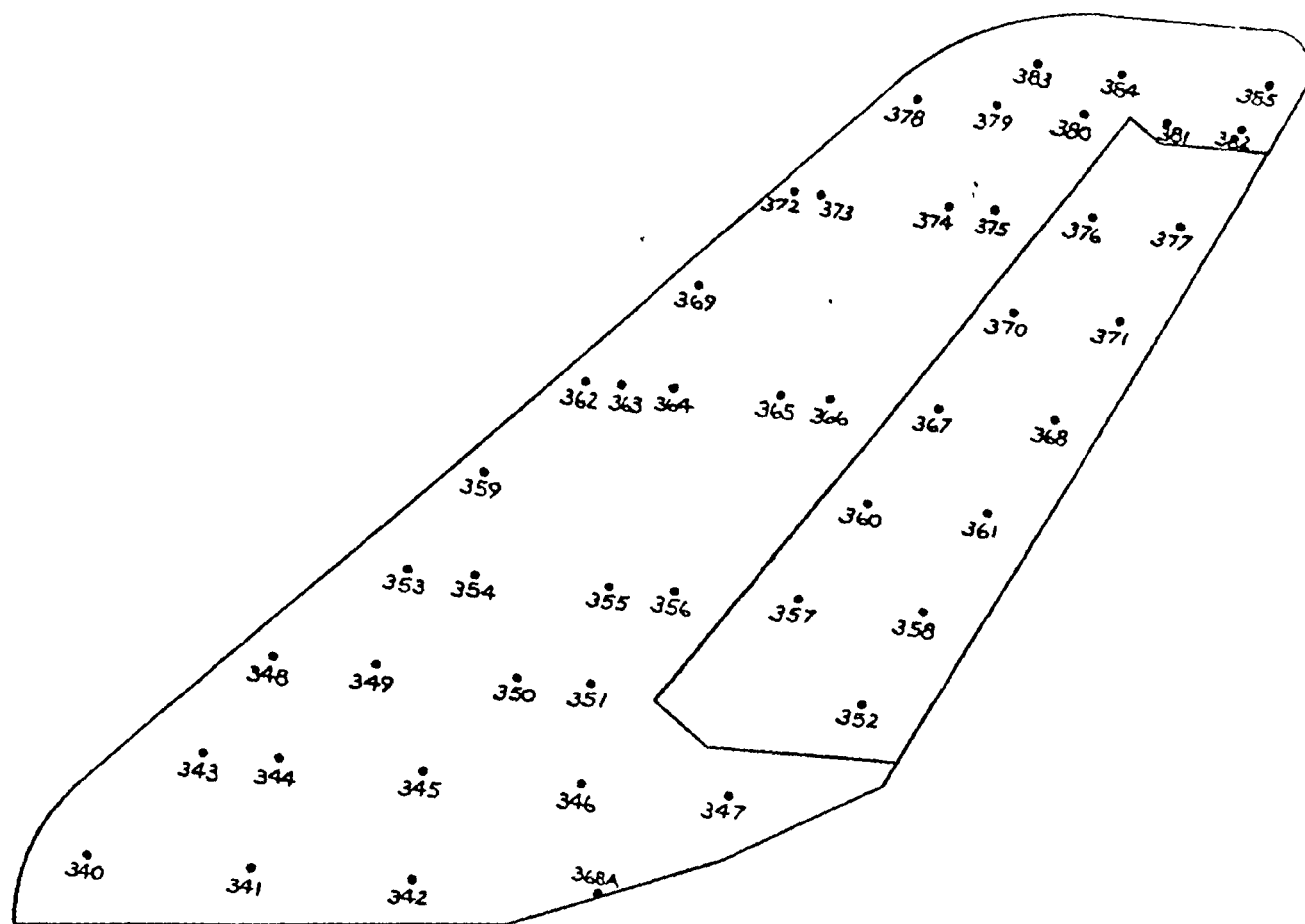




d. OMS Pod  
Fig. 7 Continued

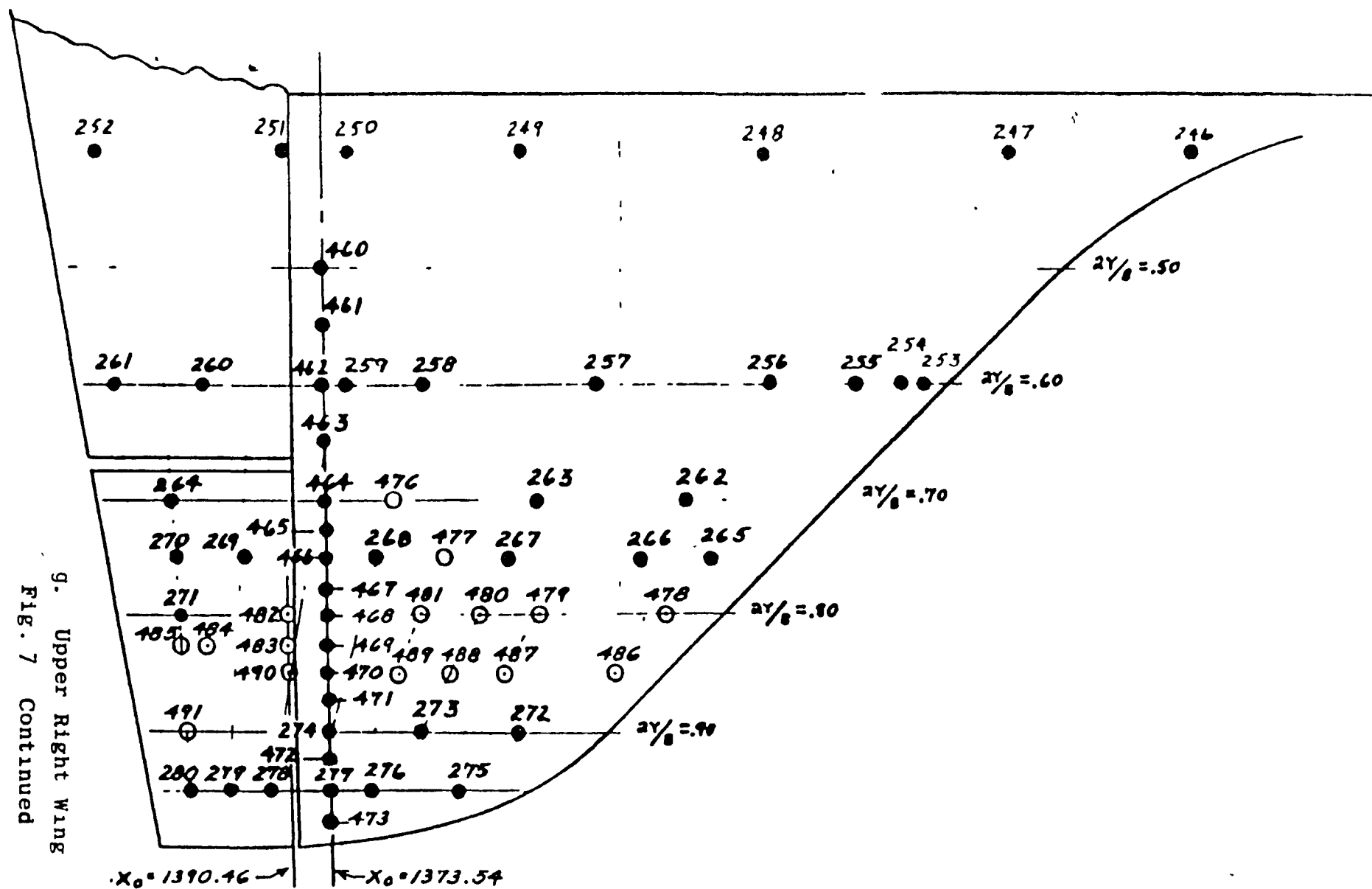


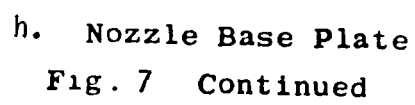
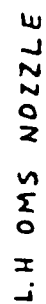
e. Aft Fuselage  
Fig. 7 Continued

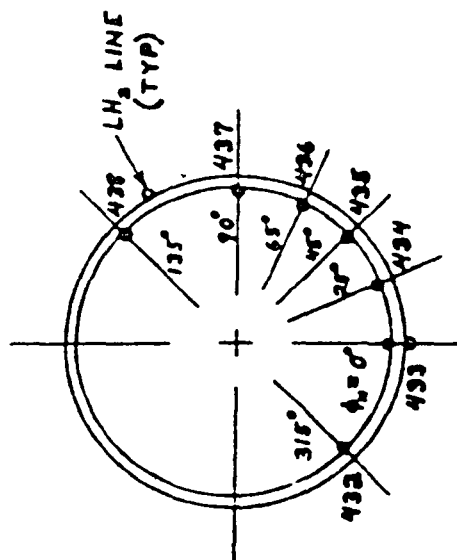
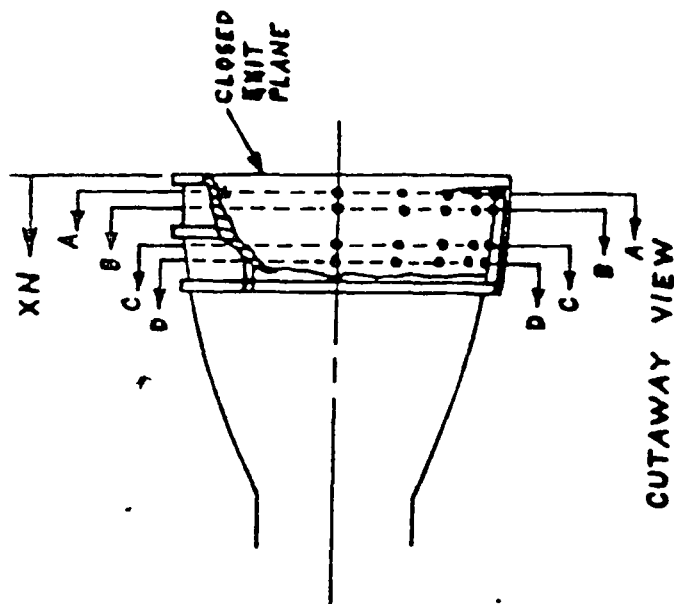


f. Vertical Tail  
Fig. 7 Continued

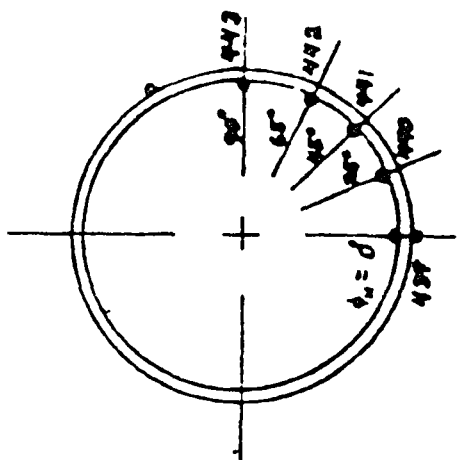
g. Upper Right Wing  
Fig. 7 Continued



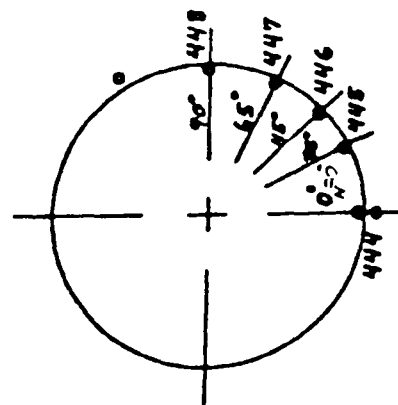




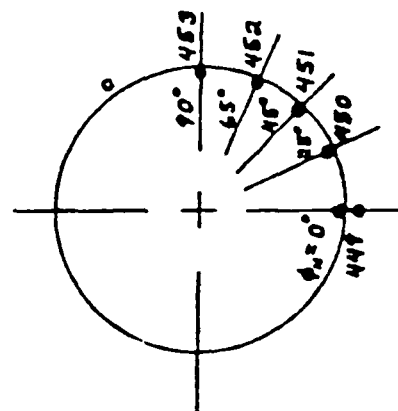
SECTION AA  
0.098 in. FROM  
NOZZLE EXIT



SECTION BB  
0.175 in. FROM  
NOZZLE EXIT



SECTION CC  
0.270 in. FROM EXIT



SECTION DD  
0.438 in. FROM EXIT

ALL DIMENSIONS IN INCHES (MODEL SCALE)

i. Lower Right SSME Nozzle  
Fig.7 Concluded

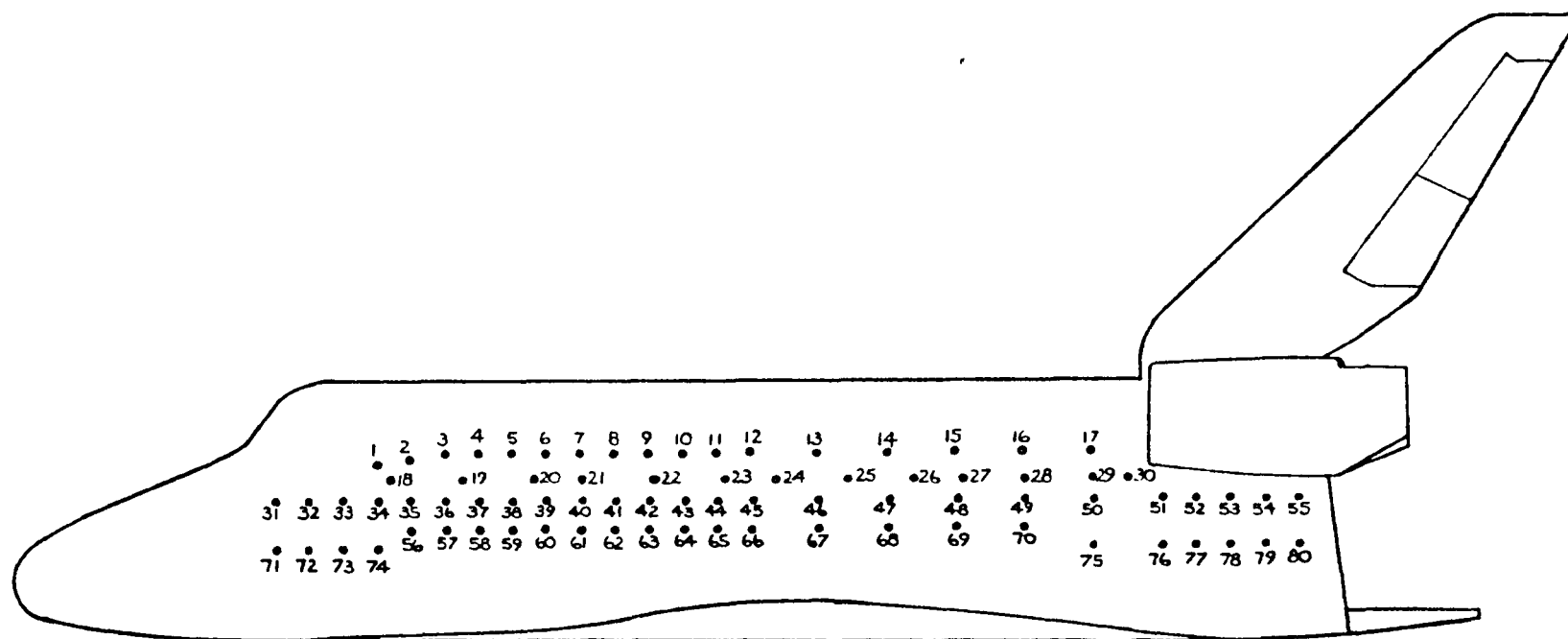
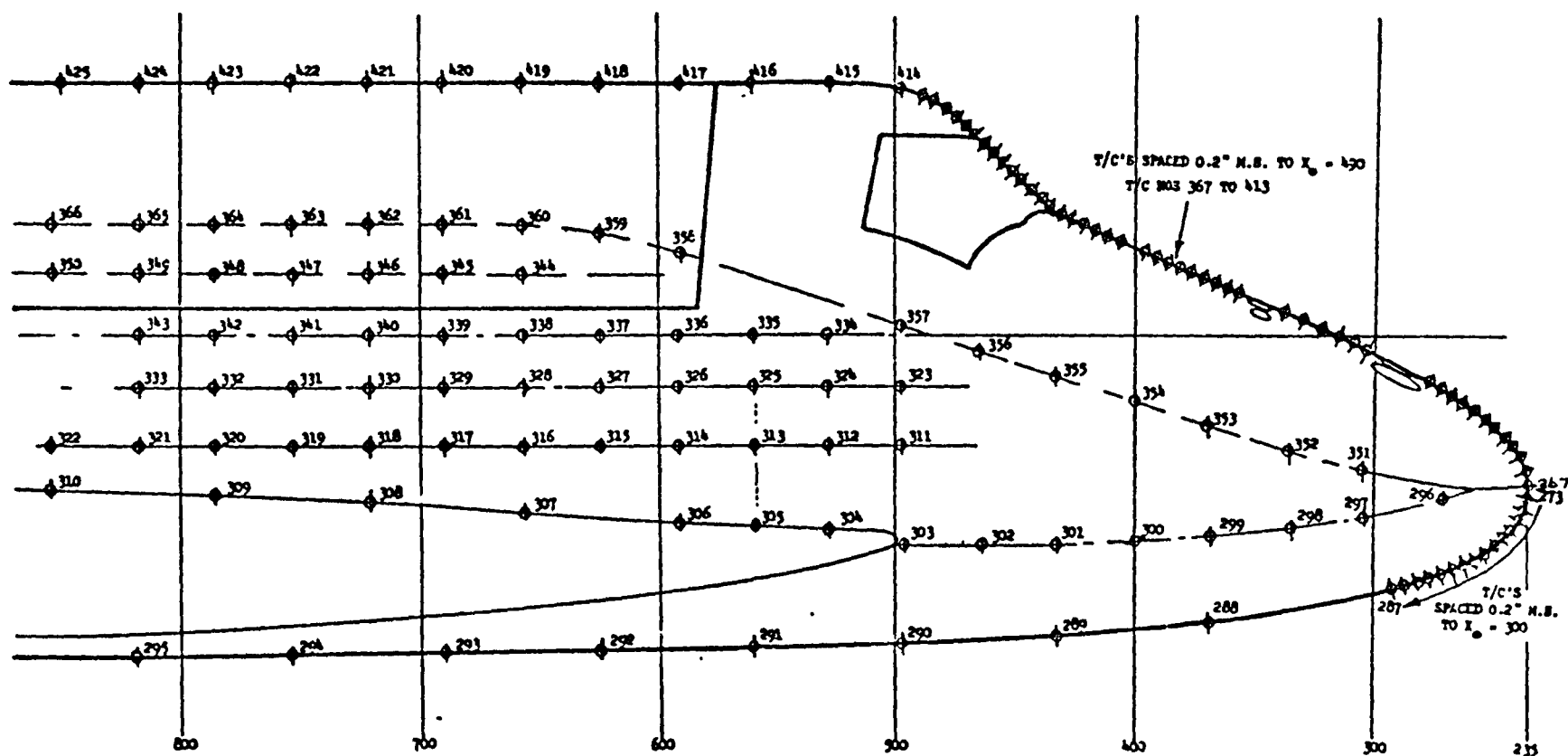


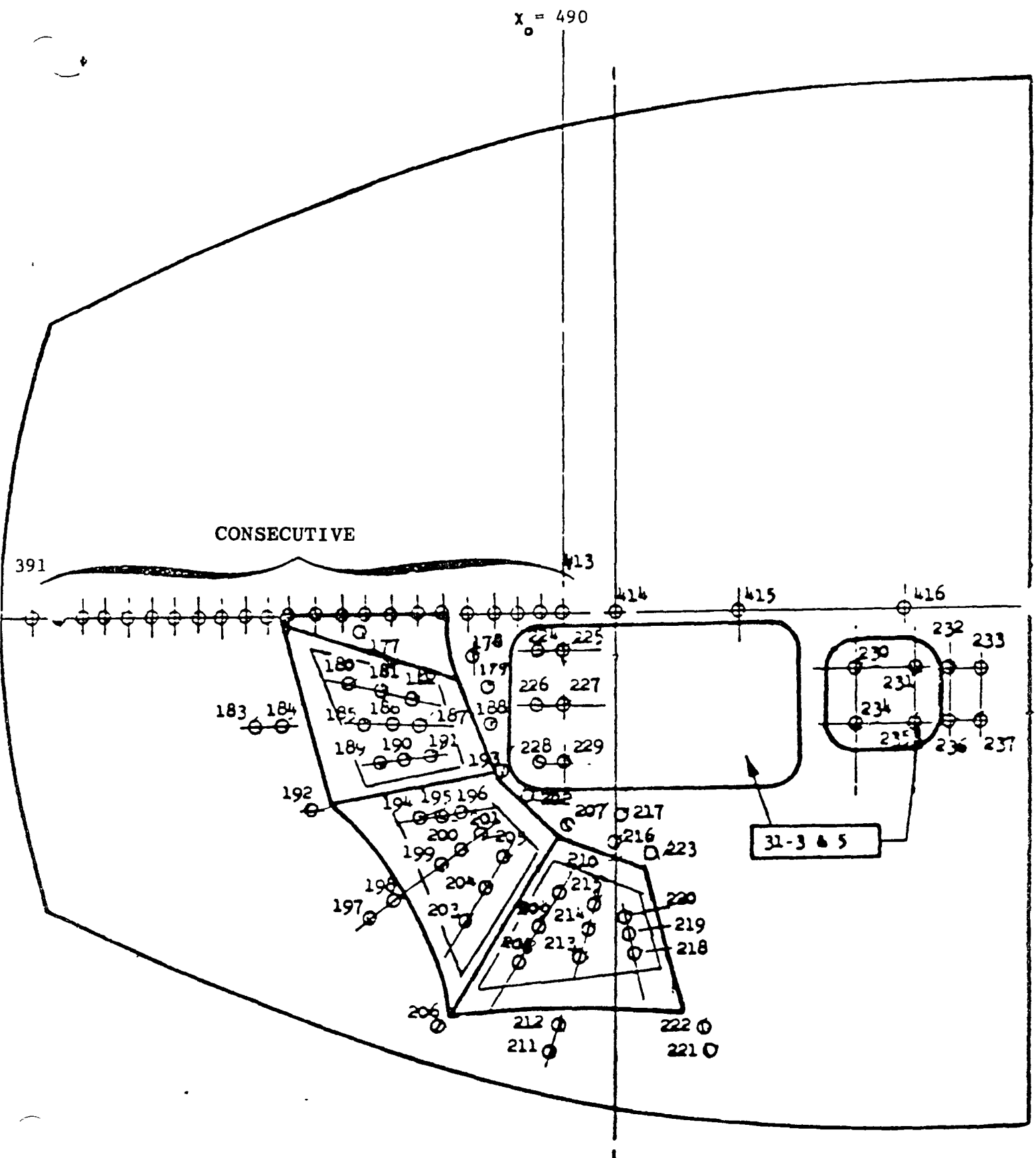
Fig. 8. Thermocouple Locations on 56-Ø Model



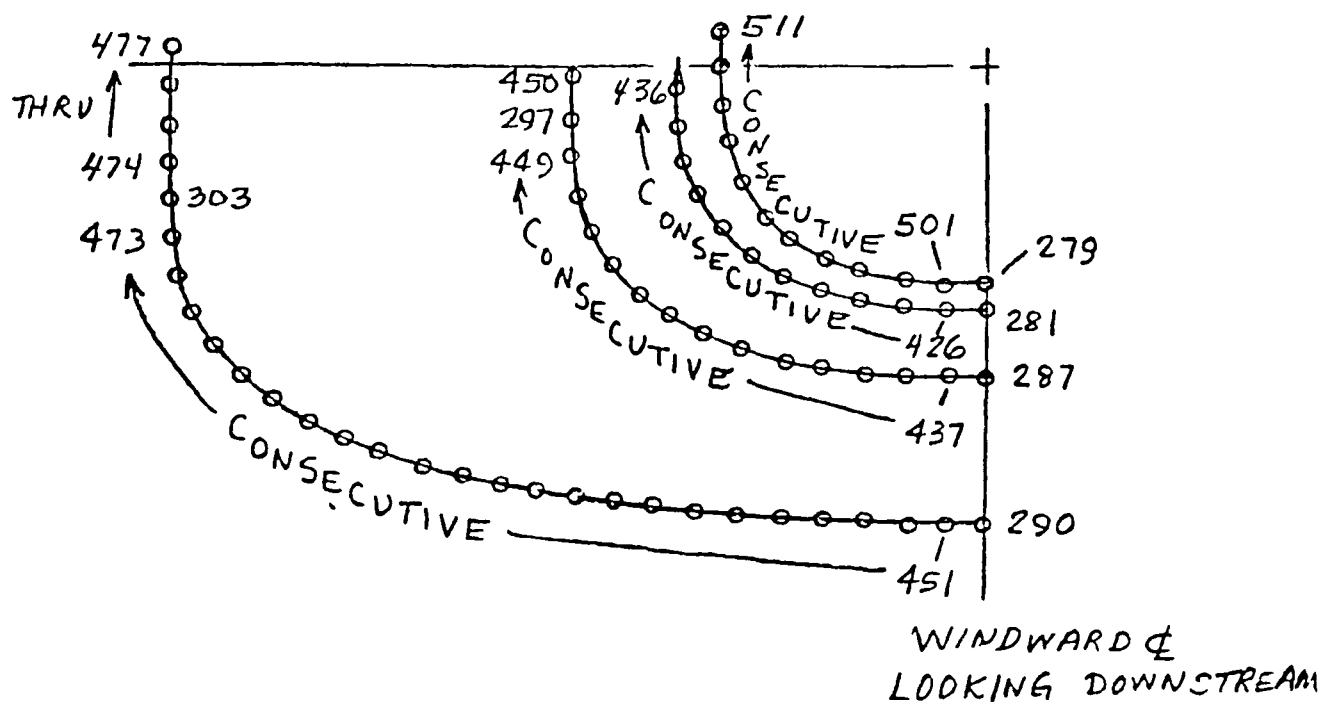
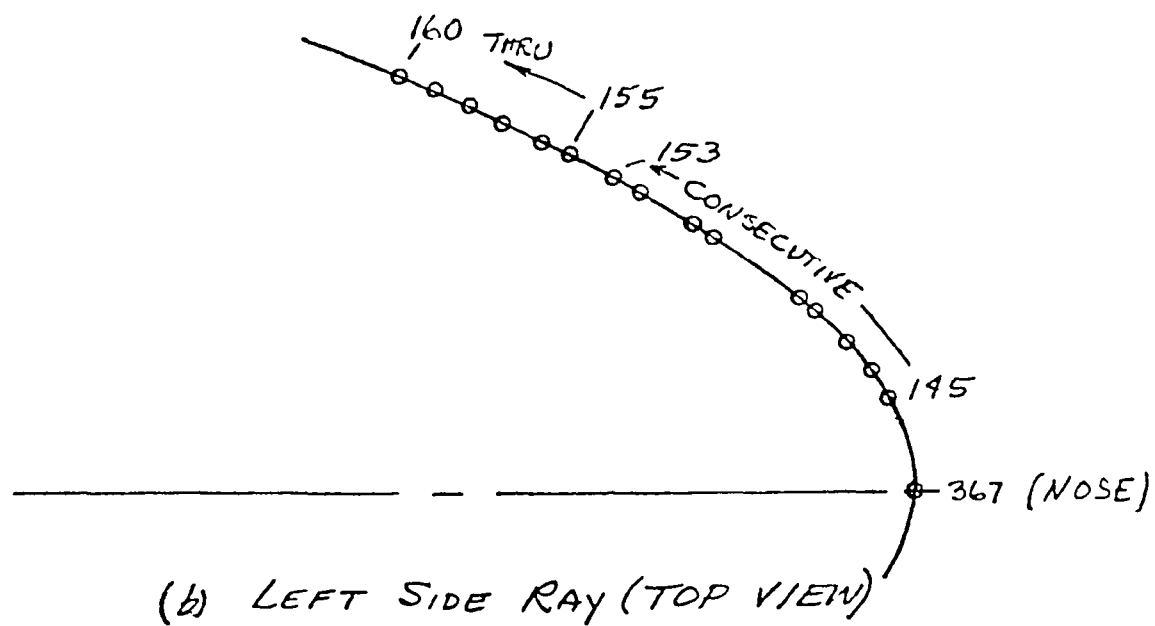
a. T/C Locations on Fuselage Right Side

Fig. 9 Thermocouple Locations on 83-Ø Model

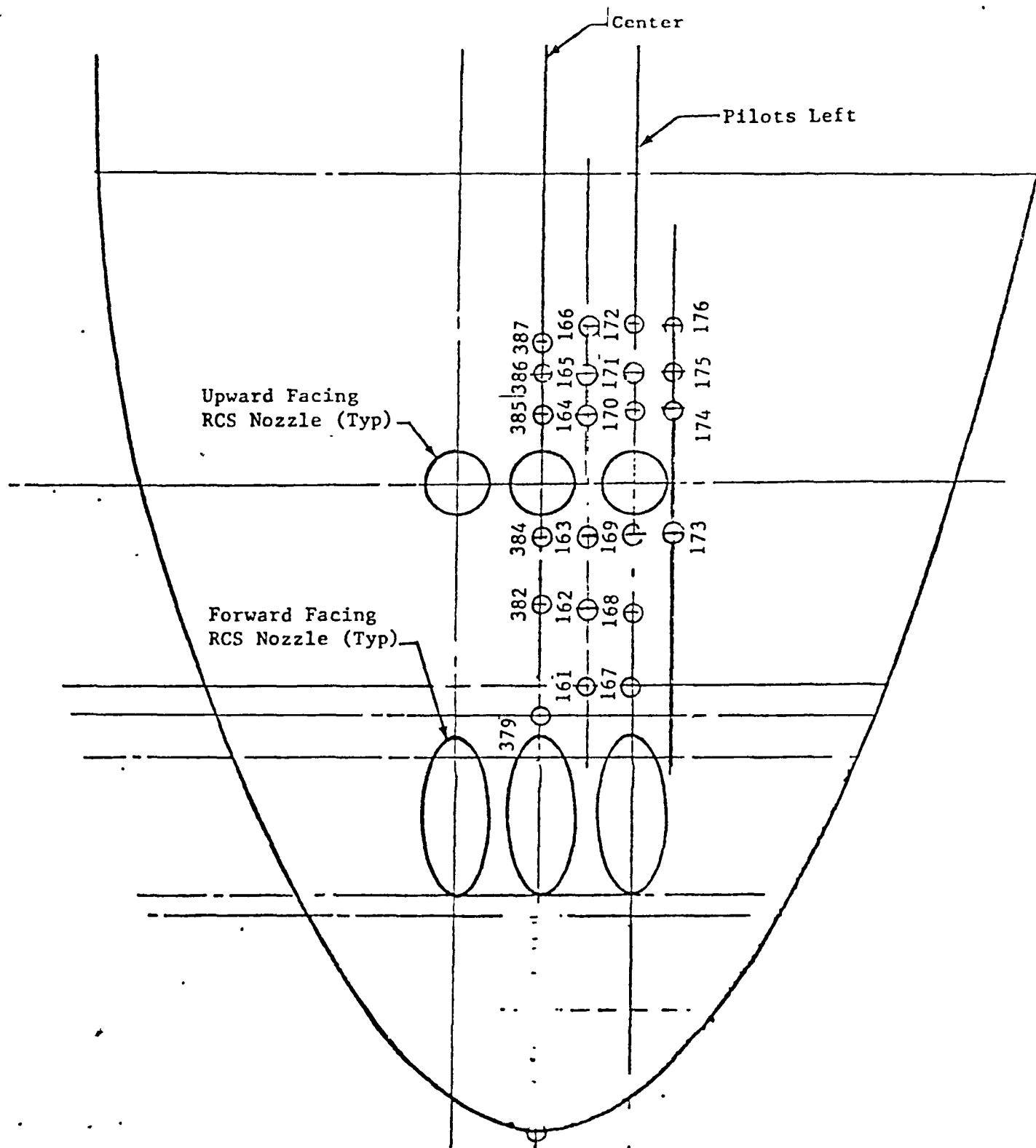




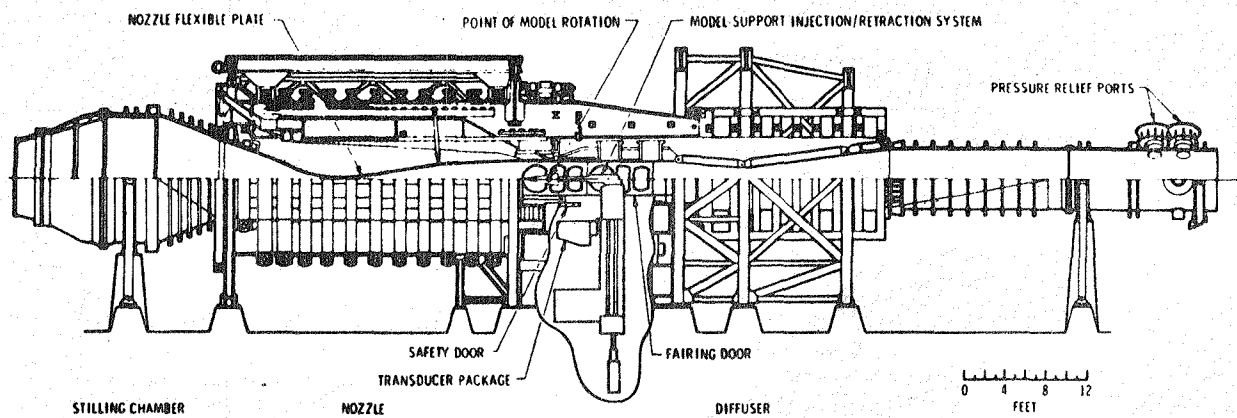
b. Canopy T/C Locations  
Fig. 9 Continued



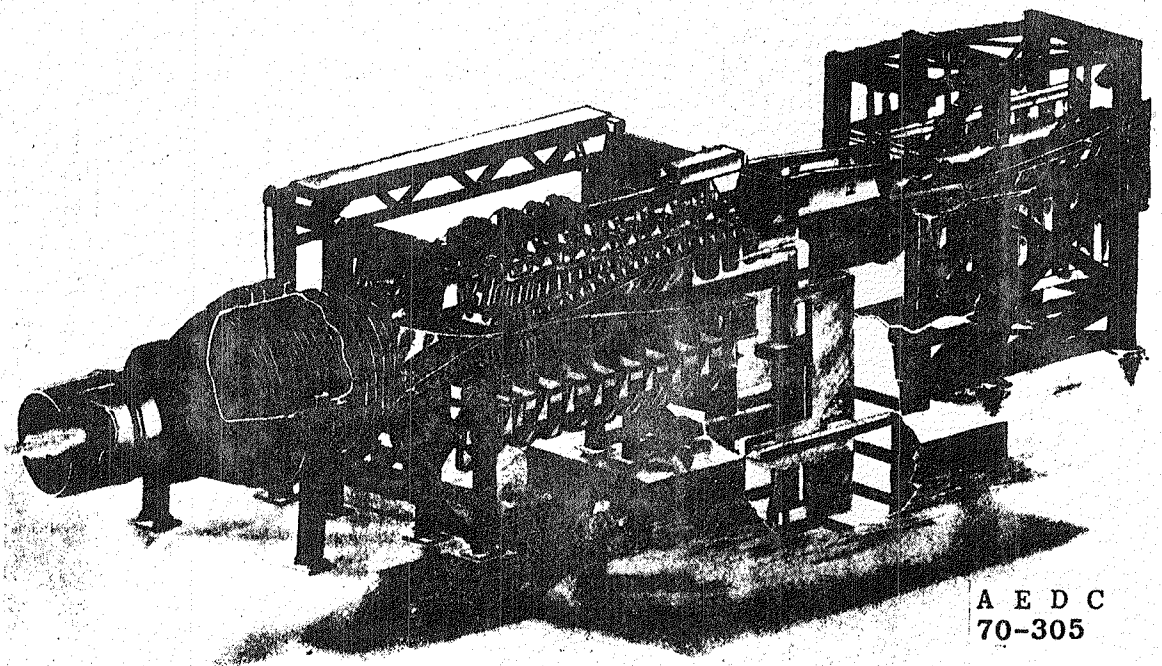
c. Radial Locations  
Fig. 9 Continued



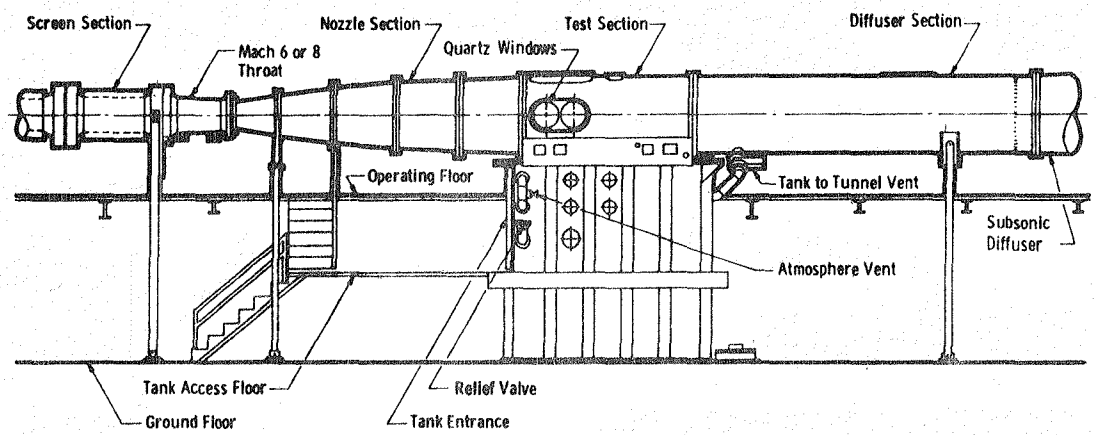
d. Upper Nose T/C Locations  
Fig. 9 Concluded



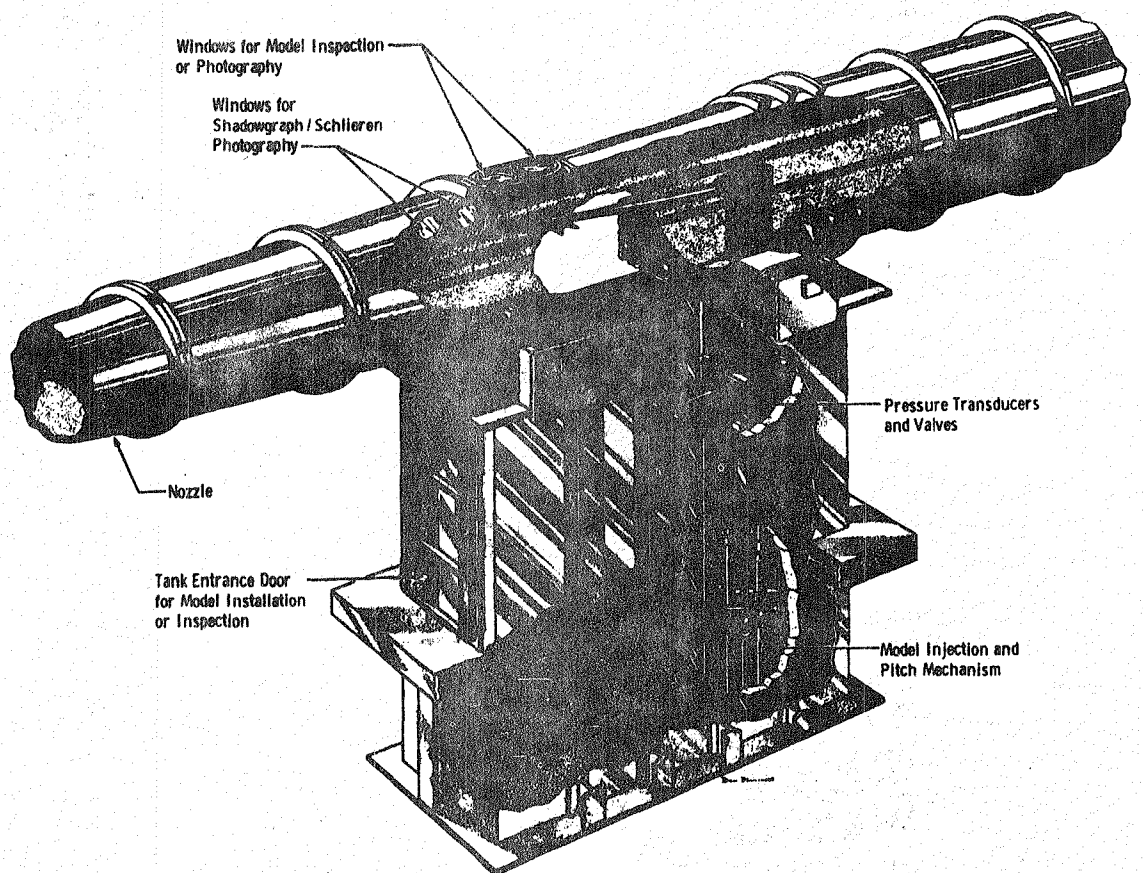
**a. Tunnel assembly**



**b. Tunnel test section**  
**Fig.10 Tunnel A**



a. Tunnel assembly



b. Tunnel test section  
Fig. 11 Tunnel B

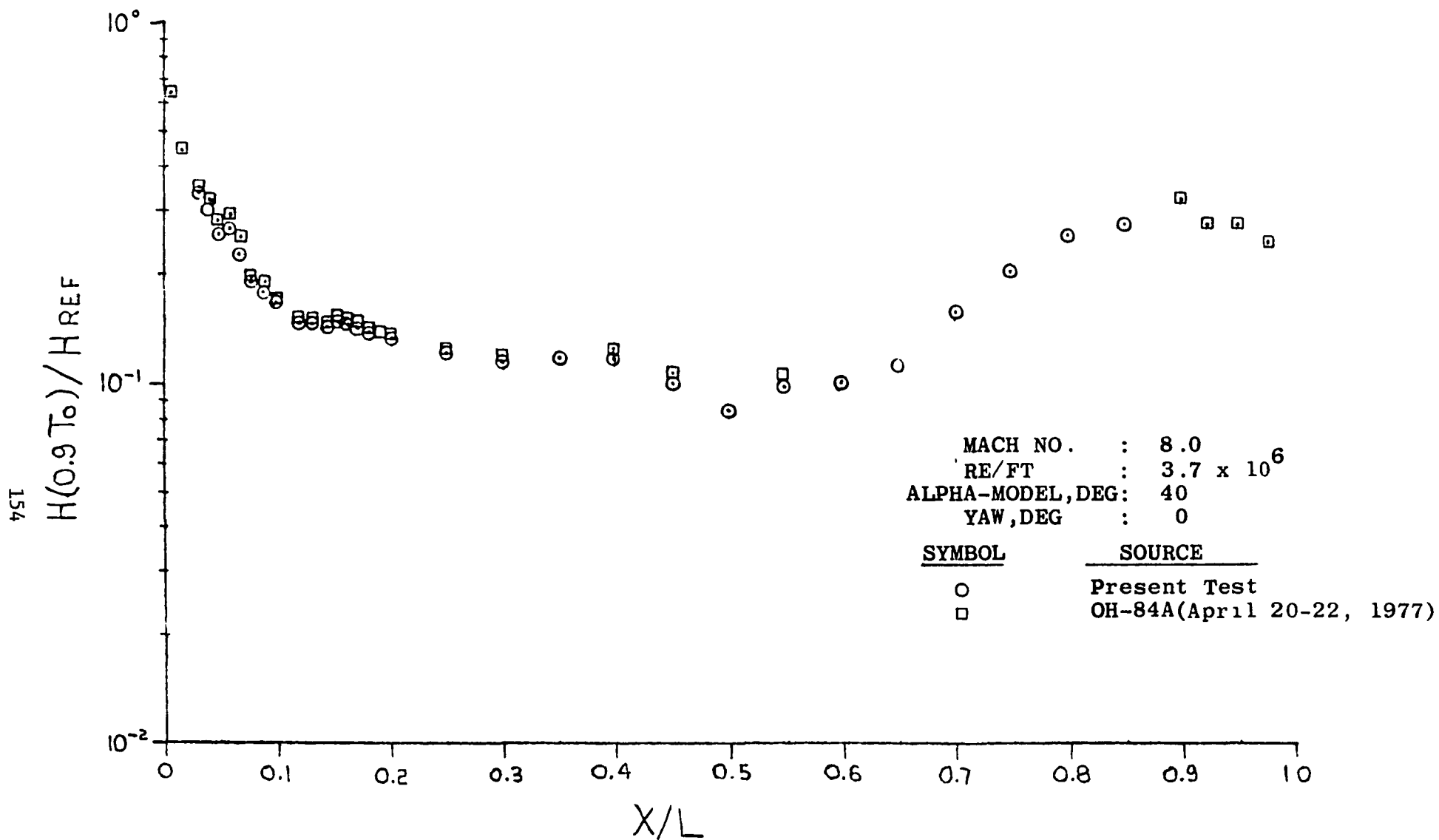


Fig. 12 Comparison of Current and Previous Test Results

## APPENDIX

## TABULATED SOURCE DATA

MODEL	DATASET 4TH CHARACTER *	COMPONENT DESCRIPTION	TEST IDENTIFICATION					
			OH84B		OH105		IH102	
			VOL.	PAGES	VOL.	PAGES	VOL.	PAGES
60	A	FUSELAGE	1	1-284	5	1-37	6	1-89
	B	FUSELAGE		285-444		38-62		-
	C	FUSELAGE		445-586		63-74		90-122
	D	LOWER NOSE		587-650		75-86		123-155
	E	LOWER NOSE		651-714		87-99		156-188
	F	LOWER MID FUSELAGE	↓	715-778		100-111		-
	G	LOWER AFT FUSELAGE	2	779-874		112-124		-
	H	LOWER ELEVON FUSELAGE		875-970		-		-
	I	AFT FUSELAGE/ELEVON SPLITLINE		971-1126		125-137		189-221
	J	UPPER RH WING		1127-1281		138-149		222-252
	K	LOWER BODY FLAP		1282-1377		150-162		-
	L	BODYFLAP EDGE		1378-1473		163-175		-
	M	VERTICAL TAIL		1474-1535		176-187		253-257
	N	UPPER MID FUSELAGE	↓	1536-1655		188-211		258-320
	O	UPPER RH WING	3	1656-1811		212-223		321-353
	P	WING MISC		1812-1907		224-236		354-386
	Q	WING LOWER SURFACE		1908-2228		237-274		-
	R	WING UPPER SURFACE	↓	2229-2484		275-299		387-450
	S	OMS POD	4	2485-2618		300-323		451-516
	T	VERTICAL TAIL		2619-2752		324-347		550-615
60	U	SPEEDBRAKE CAVITY		2753-2756		-		-
56	V	FUSELAGE		-		-		649-731
60	W	WINDOWS		2757-2820		348-359		616-648
	X	OMS POD		2821-2887		360-371		517-549
	Y	SSME NOZZLE		2888-3079		-		-
60	X	UPPER BODY FLAP		3080-3175		-		-
60	1	ORBITER BASE		3176-3269		-		-
83	2	CCL LINE		-		-		776-785
	3	FUSELAGE		-		-		756-775
	4	PILOT RT (X-SECT)		-		387-414		806-825
	5	TOP CENTERLINE		-		415-443		786-805
	6	MHB LINE		-		444-457		746-755
	7	BOTTOM CENTERLINE		-		458-471		732-745
	8	CANOPY		-		472-501		-
	9	UPPER RCS NOZZLES		-		502-516		-
83	0	ESC HTCH + WINDOWS	↓	-	↓	372-386	↓	-

\*1. Some components are collated into separate groups due to different geometric descriptions of the thermocouples groupings.

2. In the tabulated data, the thermocouples numbered ###A appear as 2### and ###C appear as 1###.

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DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US01)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 25.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = 49.00

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
9	1.019	7.940	24.97	5591-06	205.0	1248.	91.68	.2205-01	.9732	3727.	.6492-03	.7378-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
9	.2415-01	.4026-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
9	1325.0	428.60	298.00	.3896-02	.4732-02	.4732-02	.9000	.9411-04	.1143-03	.6650-01	.4946	541.0
9	1325.0	489.20	299.00	.1685-01	.2048-01	.2048-01	.9000	.4069-03	.4947-03	.2860	1.930	544.8
9	1325.0	506.70	301.00	.3313-02	.4021-02	.4021-02	.9000	.8003-04	.9712-04	.5673-01	.4526	538.8
9	1325 0	511.30	300.00	.8803-02	.1069-01	.1069-01	.9000	.2126-03	.2582-03	.1503	1.118	540.8
9	1350.0	440.40	302.00	.8312-02	.1010-01	.1010-01	.9000	.2008-03	.2439-03	.1416	1.315	542.6
9	1350.0	458.60	303.00	.4723-01	.5749-01	.5749-01	.9000	.1141-02	.1389-02	.7976	5.910	548.5
9	1350.0	498.50	304.00	.2995-01	.3641-01	.3641-01	.9000	.7233-03	.8794-03	.5084	3.538	544.8
9	1350.0	515.50	306.00	.5891-02	.7154-02	.7154-02	.9000	.1423-03	.1728-03	.1006	.7243	540.6
9	1350.0	524.40	305.00	.8322-02	.1011-01	.1011-01	.9000	.2010-03	.2441-03	.1421	1.094	540.6
9	1375.0	421.60	308.00	.2618-02	.3181-02	.3181-02	.9000	.6323-04	.7682-04	.4459-01	.6214	542.5
9	1375 0	440.00	309.00	.9291-02	.1129-01	.1129-01	.9000	.2244-03	.2727-03	.1581	1.533	543.0
9	1375.0	460.00	310.00	.6179-01	.7523-01	.7523-01	.9000	.1492-02	.1817-02	.1042	6.614	549.5
9	1375 0	503.40	311.00	.1919-01	.2331-01	.2331-01	.9000	.4636-03	.5631-03	.3273	2.607	541.7
9	1375 0	531.00	312.00	.7109-02	.8628-02	.8628-02	.9000	.1717-03	.2084-03	.1217	.8766	539.1
9	1400.0	523.40	313.00	.7677-02	.9321-02	.9321-02	.9000	.1854-03	.2251-03	.1312	1.085	540.0
9	1425.0	415.10	315.00	.4724-02	.5738-02	.5738-02	.9000	.1141-03	.1386-03	.8058-01	.5799	541.4
9	1425.0	437.70	316.00	.1280-01	.1555-01	.1555-01	.9000	.3093-03	.3757-03	.2184	1.624	541.6
9	1425 0	466.30	317.00	.5020-01	.6105-01	.6105-01	.9000	.1212-02	.1475-02	.8510	4.985	545.8
9	1425 0	508.60	318.00	.9895-02	.1202-01	.1202-01	.9000	.2390-03	.2902-03	.1689	1.396	540.8
9	1425 0	536.50	319.00	.5211-02	.6324-02	.6324-02	.9000	.1259-03	.1528-03	.8918-01	.6639	539.1
9	1450 0	418.20	320.00	.4346-02	.5278-02	.5278-02	.9000	.1050-03	.1275-03	.7415-01	.7192	541.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US01)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
9	1450.0	436.00	321.00	.9530-02	.1158-01	.1158-01	.9000	.2302-03	.2796-03	.1626	1.250	541.5
9	1450 0	468 20	322.00	3797-01	4617-01	.4617-01	.9000	.9171-03	.1115-02	.6444	4.348	545.0
9	1450 0	511.10	323.00	7414-02	9001-02	9001-02	.9000	.1791-03	.2174-03	.1267	1.132	539.9
9	1450 0	526 60	325 00	7640-02	9276-02	.9276-02	.9000	.1845-03	.2240-03	.1306	1.080	539.9
9	1500 0	437 00	327 00	6778-02	8229-02	8229-02	.9000	.1637-03	.1988-03	.1159	8918	540 0
9	1500 0	470 40	328 00	1680-01	2040-01	2040-01	.9000	.4058-03	.4928-03	.2868	1.778	540 8
9	1500 0	514 00	329 00	.5523-02	6703-02	6703-02	.9000	.1334-03	.1619-03	.9453-01	6811	539.0
9	1500 0	532.30	331 00	5388-02	6538-02	6538-02	.9000	.1301-03	.1579-03	.9230-01	.6065	538 4
9	1500.0	539.40	330 00	.3201-02	3884-02	3884-02	.9000	.7730-04	.9381-04	.5480-01	.3949	538.7
9	1525 0	424.00	332 00	1771-02	2149-02	2149-02	.9000	.4277-04	.5190-04	.3032-01	2335	538 8
9	1525 0	431 00	333 00	5275-02	6402-02	.6402-02	.9000	.1274-03	.1546-03	.9027-01	.5929	539 1
9	1525 0	440 00	334 00	1011-01	1227-01	1227-01	.9000	.2441-03	.2963-03	.1731	1.105	538 6
9	1525 0	493 00	335 00	1690-01	.2051-01	.2051-01	.9000	.4082-03	.4954-03	.2893	2.228	538 9
9	1545 0	434 00	338 00	4158-02	5045-02	.5045-02	.9000	.1004-03	.1219-03	.7126-01	.5898	538.1
9	1545.0	443 00	339 00	8669-02	.1052-01	.1052-01	.9000	.2094-03	.2541-03	.1484	.8498	539 0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2487

OH84B 60-0 OMS POD

(R4US01)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = 49.00

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
8	1.994	7.980	24.96	.5594-06	433.2	1302.	94.76	.4510-01	2.010	3808.	.1284-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) #.0175
8	.3497-01	.2875-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
8	1325 0	428.60	298.00	.6411-02	.7741-02	.7741-02	.9000	.2242-03	.2707-03	.1700	1.262	543.6
8	1325.0	489.20	299.00	.5540-01	.6712-01	.6712-01	.9000	.1937-02	.2347-02	1.444	9.688	556.3
8	1325 0	506.70	301.00	.5792-02	.6985-02	.6985-02	.9000	.2025-03	.2443-03	.1543	1.231	539.6
8	1325.0	511.30	300.00	.1897-01	.2291-01	.2291-01	.9000	.6635-03	.8011-03	.5029	3.735	543.8
8	1350 0	440.40	302.00	.1425-01	.1722-01	.1722-01	.9000	.4984-03	.6022-03	.3766	3.492	546.1
8	1350.0	458.60	303.00	.1161	.1412	.1412	.9000	.4059-02	.4939-02	2.964	21.71	571.5
8	1350.0	498.50	304.00	.4523-01	.5469-01	.5469-01	.9000	.1582-02	.1913-02	1.190	8.261	549.4
8	1350.0	515.50	306.00	.5663-02	.6831-02	.6831-02	.9000	.1980-03	.2389-03	.1507	1.085	540.5
8	1350 0	524.40	305.00	.1119-01	.1350-01	.1350-01	.9000	.3912-03	.4721-03	.2974	2.288	541.5
8	1375.0	421.60	308.00	.3164-02	.3821-02	.3821-02	.9000	.1106-03	.1336-03	.8374-01	1.166	544.8
8	1375 0	440.00	309.00	.1596-01	.1928-01	.1928-01	.9000	.5580-03	.6741-03	.4215	4.078	546.3
8	1375.0	460.00	310.00	.1112	.1352	.1352	.9000	.3689-02	.4727-02	2.855	17.96	567.5
8	1375 0	503.40	311.00	.2400-01	.2898-01	.2898-01	.9000	.8393-03	.1013-02	.6360	5.061	543.8
8	1375 0	531.00	312.00	.8451-02	.1019-01	.1019-01	.9000	.2955-03	.3563-03	.2255	1.625	538.7
8	1400 0	523.40	313.00	.7723-02	.9315-02	.9315-02	.9000	.2700-03	.3257-03	.2057	1.700	540.1
8	1425 0	415.10	315.00	.7159-02	.8643-02	.8643-02	.9000	.2504-03	.3022-03	.1899	1.365	543.2
8	1425 0	437.70	316.00	.1240-01	.1496-01	.1496-01	.9000	.4335-03	.5233-03	.3291	2.445	542.7
8	1425 0	466.30	317.00	.6292-01	.7609-01	.7609-01	.9000	.2200-02	.2661-02	1.654	9.667	550.0
8	1425 0	508.60	318.00	.1293-01	.1560-01	.1560-01	.9000	.4522-03	.5455-03	.3442	2.845	540.6
8	1425 0	536.50	319.00	.5421-02	.6534-02	.6534-02	.9000	.1896-03	.2285-03	.1449	1.079	537.6
8	1450 0	418.20	320.00	.6355-02	.7670-02	.7670-02	.9000	.2222-03	.2682-03	.1687	1.636	542.4

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O OMS POD

(R4US01)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
8	1450.0	436.00	321.00	.1096-01	.1323-01	1323-01	.9000	.3833-03	.4625-03	.2914	2.241	541.4
8	1450.0	468.20	322.00	.4799-01	.5803-01	5803-01	.9000	.1678-02	.2029-02	1.262	8.499	549.4
8	1450.0	511.10	323.00	.1010-01	.1218-01	.1218-01	.9000	.3531-03	.4258-03	.2693	2.406	539.0
8	1450.0	526.60	325.00	.5737-02	.6916-02	.6916-02	.9000	.2006-03	.2419-03	.1532	1.268	538.1
8	1500.0	437.00	327.00	.8620-02	.1039-01	.1039-01	.9000	.3014-03	.3633-03	.2303	1.775	537.5
8	1500.0	470.40	328.00	.2738-01	.3302-01	.3302-01	.9000	.9573-03	.1155-02	.7289	4.520	540.2
8	1500.0	514.00	329.00	.5581-02	.6723-02	.6723-02	.9000	.1952-03	.2351-03	.1496	1.080	535.0
8	1500.0	532.30	331.00	.4942-02	.5953-02	.5953-02	.9000	.1728-03	.2082-03	.1325	.8719	535.1
8	1500.0	539.40	330.00	.4051-02	.4881-02	.4881-02	.9000	.1417-03	.1707-03	.1085	.7835	535.5
8	1525.0	424.00	332.00	.2384-02	.2872-02	.2872-02	.9000	.8338-04	.1004-03	6396-01	.4937	534.6
8	1525.0	431.00	333.00	.7432-02	.8954-02	.8954-02	.9000	.2599-03	.3131-03	.1991	1.310	535.6
8	1525.0	440.00	334.00	.1422-01	.1713-01	.1713-01	.9000	.4973-03	.5992-03	.3808	2.433	536.0
8	1525.0	493.00	335.00	.1491-01	.1796-01	.1796-01	.9000	.5214-03	.6282-03	.3995	3.082	535.6
8	1545.0	434.00	338.00	.5310-02	.6394-02	.6394-02	.9000	.1857-03	.2236-03	.1426	1.183	533.7
8	1545.0	443.00	339.00	.1366-01	.1645-01	.1645-01	.9000	.4776-03	.5753-03	.3660	2.100	535.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2489

OH84B 60-0 OMS POD

(R4US01)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 25.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = 49.00

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
7	2.996	7.990	24.92	.5613-06	666.7	1320	95.85	.6885-01	3.077	3835.	.1939-02	.7713-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
7	4336-01	2344-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
7	1325.0	428.60	298.00	.8735-02	.1054-01	.1054-01	.9000	.3788-03	.4569-03	2923	2.166	548.0
7	1325.0	489.20	299.00	.9338-01	.1136	.1136	.9000	.4049-02	.4925-02	3.004	19.94	577.7
7	1325.0	506.70	301.00	.8101-02	.9761-02	.9761-02	.9000	.3513-03	.4233-03	.2725	2.168	543.9
7	1325.0	511.30	300.00	.1690-01	.2039-01	.2039-01	.9000	.7330-03	.8842-03	.5655	4.190	548.2
7	1350.0	440.40	302.00	.2334-01	.2819-01	.2819-01	.9000	.1012-02	.1223-02	.7759	7.170	553.0
7	1350.0	458.60	303.00	.1256	.1533	.1533	.9000	.5447-02	.6650-02	3.973	28.83	590.3
7	1350.0	498.50	304.00	.3839-01	.4640-01	.4640-01	.9000	.1665-02	.2012-02	1.274	8.823	554.5
7	1350.0	515.50	306.00	.8022-02	.9670-02	.9670-02	.9000	.3479-03	.4193-03	.2693	1.934	545.5
7	1350.0	524.40	305.00	.9684-02	.1167-01	.1167-01	.9000	.4199-03	.5063-03	.3250	2.495	545.7
7	1375.0	421.60	308.00	.3772-02	.4551-02	.4551-02	.9000	.1636-03	.1974-03	.1261	1.752	548.6
7	1375.0	440.00	309.00	.3273-01	.3957-01	.3957-01	.9000	.1419-02	.1716-02	1.083	10.43	556.4
7	1375.0	460.00	310.00	.9146-01	.1110	.1110	.9000	.3966-02	.4813-02	2.973	18.68	570.0
7	1375.0	503.40	311.00	.2220-01	.2679-01	.2679-01	.9000	.9627-03	.1162-02	7416	5.885	549.4
7	1375.0	531.00	312.00	.8666-02	.1044-01	.1044-01	.9000	.3758-03	.4527-03	.2919	2.099	542.8
7	1400.0	523.40	313.00	.8615-02	.1038-01	.1038-01	.9000	.3736-03	.4502-03	.2896	2.389	544.5
7	1425.0	415.10	315.00	.1311-01	.1581-01	.1581-01	.9000	.5683-03	.6856-03	.4383	3.143	548.4
7	1425.0	437.70	316.00	.2726-01	.3292-01	.3292-01	.9000	.1182-02	.1428-02	.9079	6.716	551.7
7	1425.0	466.30	317.00	.4377-01	.5286-01	.5286-01	.9000	.1898-02	.2292-02	1.456	8.501	552.5
7	1425.0	508.60	318.00	.1189-01	.1434-01	.1434-01	.9000	.5156-03	.6216-03	.3988	3.288	546.1
7	1425.0	536.50	319.00	.6696-02	.8067-02	.8067-02	.9000	.2904-03	.3498-03	.2255	1.676	543.0
7	1450.0	418.20	320.00	.1064-01	.1283-01	.1283-01	.9000	.4613-03	.5564-03	.3560	3.442	547.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2490

OH84B 60-0 OMS POD

(R4US01)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
7	1450.0	436.00	321.00	.1467-01	.1769-01	.1769-01	.9000	.6360-03	.7672-03	.4908	3.762	548.0
7	1450.0	468.20	322.00	.3775-01	.4562-01	.4562-01	.9000	.1637-02	.1978-02	1.253	8.418	554.1
7	1450.0	511.10	323.00	.9969-02	.1202-01	.1202-01	.9000	.4323-03	.5211-03	.3348	2.982	545.2
7	1450.0	526.60	325.00	.7438-02	.8962-02	.8962-02	.9000	.3225-03	.3886-03	.2503	2.066	543.5
7	1500.0	437.00	327.00	.7109-02	.8566-02	.8566-02	.9000	.3083-03	.3715-03	.2392	1.838	543.7
7	1500.0	470.40	328.00	.2258-01	.2723-01	.2723-01	.9000	.9791-03	.1181-02	.7564	4.674	547.1
7	1500.0	514.00	329.00	.7901-02	.9519-02	.9519-02	.9000	.3426-03	.4128-03	.2659	1.912	543.5
7	1500.0	532.30	331.00	.5593-02	.6735-02	.6735-02	.9000	.2425-03	.2920-03	.1888	1.239	541.3
7	1500.0	539.40	330.00	.4204-02	.5062-02	.5062-02	.9000	.1823-03	.2195-03	.1418	1.020	541.7
7	1525.0	424.00	342.00	.2205-02	.2656-02	.2656-02	.9000	.9564-04	.1152-03	7441-01	.5723	541.6
7	1525.0	431.00	333.00	.5184-02	.6244-02	.6244-02	.9000	.2248-03	.2708-03	.1748	1.146	542.3
7	1525.0	440.00	334.00	.1225-01	.1476-01	.1476-01	.9000	.5314-03	.6402-03	.4125	2.627	543.3
7	1525.0	493.00	335.00	.1369-01	.1649-01	.1649-01	.9000	.5936-03	.7153-03	.4606	3.539	543.7
7	1545.0	434.00	338.00	.4269-02	.5141-02	.5141-02	.9000	.1851-03	.2229-03	.1441	1.191	541.1
7	1545.0	443.00	339.00	.1108-01	.1335-01	.1335-01	.9000	.4806-03	.5790-03	.3734	2.134	542.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US01)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 25.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
6	3.633	8.000	24 35	.1253-01	846.7	1358.	98 38	.8672-01	3.885	3890.	.2379-02	.7917-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
6	4897-01	2122-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
6	1325.0	428.60	298.00	.1279-01	.1536-01	.1536-01	.9000	.6263-03	.7522-03	.5081	3.769	546.3
6	1325.0	489.20	299.00	.1122	.1361	.1361	.9000	.5493-02	.6663-02	.4246	28.09	584.6
6	1325.0	506.70	301.00	.1011-01	.1212-01	.1212-01	.9000	.4952-03	.5938-03	.4048	3.227	540.2
6	1325.0	511.30	300.00	.1923-01	.2308-01	.2308-01	.9000	.9415-03	.1130-02	.7647	5.675	545.5
6	1350.0	440.40	302.00	.3693-01	.4445-01	.4445-01	.9000	.1809-02	.2177-02	1.453	13.42	554.3
6	1350.0	458.60	303.00	.1178	.1429	.1429	.9000	.5768-02	.7000-02	4.451	32.36	586.1
6	1350.0	498.50	304.00	.3779-01	.4542-01	.4542-01	.9000	.1851-02	.2225-02	1.495	10.38	549.9
6	1350.0	515.50	306.00	.1011-01	.1212-01	.1212-01	.9000	.4949-03	.5936-03	.4043	2.911	540.7
6	1350.0	524.40	305.00	.1185-01	.1422-01	.1422-01	.9000	.5805-03	.6963-03	.4736	3.643	541.7
6	1375.0	421.60	308.00	.4357-02	.5232-02	.5232-02	.9000	.2134-03	.2562-03	.1733	2.412	545.4
6	1375.0	440.00	309.00	.4468-01	.5381-01	.5381-01	.9000	.2188-02	.2635-02	1.750	16.83	557.9
6	1375.0	460.00	310.00	.8561-01	.1033	.1033	.9000	.4192-02	.5060-02	3.319	20.90	565.9
6	1375.0	503.40	311.00	.2136-01	.2563-01	.2563-01	.9000	.1046-02	.1255-02	.8508	6.769	544.2
6	1375.0	531.00	312.00	.9724-02	.1165-01	.1165-01	.9000	.4762-03	.5707-03	.3904	2.815	537.8
6	1400.0	523.40	313.00	.1053-01	.1263-01	.1263-01	.9000	.5158-03	.6184-03	.4219	3.488	539.8
6	1425.0	415.10	315.00	.9938-02	.1193-01	.1193-01	.9000	.4867-03	.5841-03	.3962	2.848	543.7
6	1425.0	437.70	316.00	.2510-01	.3015-01	.3015-01	.9000	.1229-02	.1476-02	.9973	7.397	546.5
6	1425.0	466.30	317.00	.4083-01	.4904-01	.4904-01	.9000	.2000-02	.2401-02	1.623	9.505	546.1
6	1425.0	508.60	318.00	.1167-01	.1399-01	.1399-01	.9000	.5714-03	.6850-03	.4676	3.868	539.3
6	1425.0	536.50	319.00	.6814-02	.8163-02	.8163-02	.9000	.3337-03	.3997-03	.2743	2.045	535.8
6	1450.0	418.20	320.00	.9102-02	.1092-01	.1092-01	.9000	.4458-03	.5349-03	.3633	3.521	542.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2492

OH84B 60-0 OMS POD

(R4US01)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
6	1450 0	436 00	321.00	.1744-01	.2093-01	.2093-01	.9000	.8541-03	.1025-02	.6958	5.348	543.0
6	1450 0	468.20	322.00	.3406-01	.4090-01	.4090-01	.9000	.1668-02	.2003-02	1.354	9.132	545.9
6	1450 0	511 10	323 00	.9573-02	.1147-01	.1147-01	.9000	.4688-03	.5618-03	.3844	3.437	537 6
6	1450 0	526 60	325.00	.9256-02	.1109-01	.1109-01	.9000	.4533-03	.5432-03	.3717	3.077	537 6
6	1500.0	437 00	327 00	.9638-02	.1155-01	.1155-01	.9000	.4720-03	.5654-03	.3879	2.992	536.0
6	1500.0	470 40	328.00	.2348-01	.2814-01	.2814-01	.9000	.1150-02	.1378-02	.9412	5.839	539.0
6	1500 0	514 00	329.00	.8068-02	.9661-02	.9661-02	.9000	.3951-03	.4731-03	.3254	2.350	534.2
6	1500 0	532 30	331 00	.6447-02	.7718-02	.7718-02	.9000	.3157-03	.3779-03	.2605	1.716	532 8
6	1500.0	539 40	330.00	.4030-02	.4823-02	.4823-02	.9000	.1973-03	.2362-03	.1628	1.177	532.5
6	1525 0	424 00	332 00	.2525-02	.3022-02	.3022-02	.9000	.1237-03	.1480-03	.1021	.7892	532 0
6	1525 0	431 00	333 00	.6577-02	.7873-02	.7873-02	.9000	.3221-03	.3855-03	.2657	1.751	532.8
6	1525 0	440 00	334.00	.1645-01	.1971-01	.1971-01	.9000	.8057-03	.9650-03	.6627	4.238	535.1
6	1525 0	493 00	335 00	.1242-01	.1487-01	.1487-01	.9000	.6082-03	.7283-03	.5005	3.863	534.7
6	1545 0	434 00	338 00	.4964-02	.5940-02	.5940-02	.9000	.2431-03	.2909-03	.2007	1.667	531.8
6	1545.0	443 00	339.00	.1457-01	.1745-01	.1745-01	.9000	.7135-03	.8545-03	.5873	3.371	534.6



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2493

OH84B 60-0 OMS POD

(R4US02)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -4.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
155	2.001	7.980	29 94	-4.041	434 3	1301.	94 69	.4522-01	2.016	3807.	.1289-02	.7620-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
155	3501-01	2870-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
155	1325.0	428.60	298.00	.2207-01	.2664-01	.2664-01	.9000	.7726-03	.9325-03	.5862	4.358	541.9
155	1325.0	489.20	299.00	.1442	.1755	.1755	.9000	.5047-02	.6144-02	3.677	24.48	572.1
155	1325.0	506.70	301.00	.3602-01	.4344-01	.4344-01	.9000	.1261-02	.1521-02	.9608	7.664	538.8
155	1325.0	511.30	300.00	.3756-01	.4531-01	.4531-01	.9000	.1315-02	.1586-02	.9996	7.436	540.5
155	1350.0	440.40	302.00	.7390-01	.8949-01	.8949-01	.9000	.2587-02	.3133-02	1.932	17.84	554.0
155	1350.0	458.60	303.00	.1180	.1432	.1432	.9000	.4133-02	.5015-02	3.055	22.49	561.5
155	1350.0	498.50	304.00	.4480-01	.5406-01	.5406-01	.9000	.1569-02	.1893-02	1.192	8.309	540.9
155	1350.0	515.50	306.00	.2985-01	.3598-01	.3598-01	.9000	.1045-02	.1260-02	.7977	5.752	537.4
155	1350.0	524.40	305.00	.2547-01	.3069-01	.3069-01	.9000	.8918-03	.1075-02	.6820	5.261	536.0
155	1375.0	421.60	308.00	.6455-02	.7790-02	.7790-02	.9000	.2260-03	.2727-03	.1715	2.391	541.6
155	1375.0	440.00	309.00	.8682-01	.1053	.1053	.9000	.3039-02	.3688-02	2.248	21.59	561.0
155	1375.0	460.00	310.00	.8300-01	.1004	.1004	.9000	.2906-02	.3514-02	2.182	13.85	549.6
155	1375.0	503.40	311.00	.2712-01	.3269-01	.3269-01	.9000	.9496-03	.1145-02	.7251	5.789	537.2
155	1375.0	531.00	312.00	.1556-01	.1874-01	.1874-01	.9000	.5448-03	.6560-03	4.183	3.023	532.9
155	1400.0	523.40	313.00	.1667-01	.2008-01	.2008-01	.9000	.5838-03	.7031-03	.4474	3.710	534.3
155	1425.0	415.10	315.00	.1328-01	.1601-01	.1601-01	.9000	.4649-03	.5606-03	.3541	2.551	539.0
155	1425.0	437.70	316.00	.5881-01	.7103-01	.7103-01	.9000	.2059-02	.2488-02	1.552	11.51	546.8
155	1425.0	466.30	317.00	.3815-01	.4598-01	.4598-01	.9000	.1336-02	.1610-02	1.019	5.997	537.4
155	1425.0	508.60	318.00	.1255-01	.1511-01	.1511-01	.9000	.4395-03	.5291-03	3.375	2.801	532.7
155	1425.0	536.50	319.00	.9458-02	.1138-01	.1138-01	.9000	.3311-03	.3985-03	2548	1.905	531.0
155	1450.0	418.20	320.00	.1044-01	.1259-01	.1259-01	.9000	.3656-03	.4407-03	2791	2.713	537.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 OMS POD

(R4US02)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
155	1450.0	436.00	321.00	.3828-01	.4619-01	.4619-01	.9000	.1340-02	.1617-02	1.018	7.832	541.2
155	1450.0	468.20	322.00	.3064-01	.3692-01	.3692-01	.9000	.1073-02	.1293-02	.8197	5.555	536.5
155	1450.0	511.10	323.00	.9680-02	.1165-01	.1165-01	.9000	.3389-03	.4079-03	.2607	2.338	531.3
155	1450.0	526.60	325.00	.9305-02	.1120-01	.1120-01	.9000	.3258-03	.3920-03	.2507	2.082	531.1
155	1500.0	437.00	327.00	.2426-01	.2922-01	.2922-01	.9000	.8492-03	.1023-02	.6502	5.018	535.0
155	1500.0	470.40	328.00	.2220-01	.2673-01	.2673-01	.9000	.7774-03	.9358-03	.5971	3.717	532.5
155	1500.0	514.00	329.00	.8131-02	.9781-02	.9781-02	.9000	.2847-03	.3424-03	.2195	1.589	529.7
155	1500.0	532.30	331.00	.5685-02	.6835-02	.6835-02	.9000	.1990-03	.2393-03	.1538	1.016	527.8
155	1500.0	539.40	330.00	.5001-02	.6015-02	.6015-02	.9000	.1751-03	.2106-03	.1352	.9792	528.6
155	1525.0	424.00	332.00	.3187-02	.3833-02	.3833-02	.9000	.1116-03	.1342-03	.8619-01	.6674	528.3
155	1525.0	431.00	333.00	.1128-01	.1357-01	.1357-01	.9000	.3950-03	.4752-03	.3043	2.008	530.3
155	1525.0	440.00	334.00	.3181-01	.3831-01	.3831-01	.9000	.1114-02	.1341-02	.8535	5.459	534.3
155	1525.0	493.00	335.00	.1111-01	.1337-01	.1337-01	.9000	.3891-03	.4681-03	.2998	2.320	530.0
155	1545.0	434.00	338.00	.7191-02	.8648-02	.8648-02	.9000	.2517-03	.3028-03	.1944	1.616	528.7
155	1545.0	443.00	339.00	.2394-01	.2882-01	.2882-01	.9000	.8381-03	.1009-02	.6440	3.701	532.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US02)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
116	2.983	7.990	29.94	-4.039	669.2	1327.	96.36	.6911-01	3.088	3845.	.1936-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
116	.4349-01	.2347-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
116	1325.0	428.60	298.00	.4783-01	.5775-01	.5775-01	.9000	.2080-02	.2511-02	1.607	11.87	554.2
116	1325.0	489.20	299.00	.1381	.1683	.1683	.9000	.6005-02	.7317-02	4.442	29.35	587.0
116	1325.0	506.70	301.00	.3079-01	.3704-01	.3704-01	.9000	.1339-02	.1611-02	1.053	8.389	540.6
116	1325.0	511.30	300.00	.3636-01	.4379-01	.4379-01	.9000	.1581-02	.1904-02	1.237	9.180	544.6
116	1350.0	440.40	302.00	.8970-01	.1088	.1088	.9000	.3900-02	.4731-02	2.946	26.98	571.3
116	1350.0	458.60	303.00	.1179	.1432	.1432	.9000	.5127-02	.6227-02	3.851	28.15	575.6
116	1350.0	498.50	304.00	.4594-01	.5535-01	.5535-01	.9000	.1998-02	.2407-02	1.560	10.85	546.0
116	1350.0	515.50	306.00	.3014-01	.3626-01	.3626-01	.9000	.1311-02	.1577-02	1.030	7.415	540.8
116	1350.0	524.40	305.00	.2586-01	.3109-01	.3109-01	.9000	.1124-02	.1352-02	.8859	6.824	538.8
116	1375.0	421.60	308.00	.1148-01	.1384-01	.1384-01	.9000	.4991-03	.6017-03	3.883	5.395	548.6
116	1375.0	440.00	309.00	.9582-01	.1164	.1164	.9000	.4167-02	.5063-02	3.122	29.74	577.4
116	1375.0	460.00	310.00	.7739-01	.9346-01	.9346-01	.9000	.3365-02	.4064-02	2.597	16.44	555.1
116	1375.0	503.40	311.00	.2687-01	.3232-01	.3232-01	.9000	.1168-02	.1405-02	.9195	7.332	539.7
116	1375.0	531.00	312.00	.1492-01	.1791-01	.1791-01	.9000	.6487-03	.7790-03	5.147	3.719	533.3
116	1400.0	523.40	313.00	.1475-01	.1771-01	.1771-01	.9000	.6412-03	.7702-03	.5079	4.210	534.7
116	1425.0	415.10	315.00	.1294-01	.1557-01	.1557-01	.9000	.5626-03	.6769-03	.4417	3.179	541.4
116	1425.0	437.70	316.00	.6226-01	.7517-01	.7517-01	.9000	.2708-02	.3269-02	2.092	15.46	554.0
116	1425.0	466.30	317.00	.3424-01	.4118-01	.4118-01	.9000	.1489-02	.1791-02	1.172	6.889	539.3
116	1425.0	508.60	318.00	.1325-01	.1591-01	.1591-01	.9000	.5761-03	.6920-03	.4563	3.783	534.7
116	1425.0	536.50	319.00	.8363-02	.1004-01	.1004-01	.9000	.3637-03	.4364-03	.2894	2.164	530.8
116	1450.0	418.20	320.00	.9060-02	.1090-01	.1090-01	.9000	.3940-03	.4738-03	.3103	3.013	539.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US02)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
116	1450.0	436.00	321.00	.3652-01	.4398-01	.4398-01	.9000	.1588-02	.1912-02	1.243	9.548	514 1
116	1450.0	468.20	322.00	.2840-01	.3415-01	.3415-01	.9000	.1235-02	.1485-02	.9732	6.588	538 6
116	1450 0	511.10	323.00	.8541-02	.1025-01	.1025-01	.9000	.3714-03	.4459-03	.2952	2.647	531 9
116	1450 0	526.60	325.00	.7501-02	.9001-02	.9001-02	.9000	.3262-03	.3914-03	.2596	2.156	530 8
116	1500.0	437.00	327 00	.2268-01	.2726-01	.2726-01	.9000	.9863-03	.1186-02	.7786	6.002	537 2
116	1500 0	470 40	328 00	.1969-01	.2365-01	.2365-01	.9000	.8564-03	.1028-02	.6799	4.231	532.8
116	1500 0	514.00	329 00	.7211-02	.8652-02	.8652-02	.9000	.3136-03	.3762-03	.2499	1.809	529.8
116	1500.0	532 30	331 00	.5258-02	.6303-02	.6303-02	.9000	.2266-03	.2741-03	.1829	1.209	526.6
116	1500 0	539 40	330 00	.4534-02	.5436-02	.5436-02	.9000	.1972-03	.2364-03	.1575	1.142	527 6
116	1525 0	424 00	332 00	.3177-02	.3810-02	.3810-02	.9000	.1382-03	.1657-03	.1103	.8543	528.2
116	1525 0	431.00	333 00	.1125-01	.1351-01	.1351-01	.9000	.4894-03	.5873-03	.3897	2.571	530.5
116	1525.0	440.00	334.00	.3425-01	.4118-01	.4118-01	.9000	.1489-02	.1791-02	1.174	7.494	538 4
116	1525 0	493.00	335 00	.8935-02	.1072-01	.1072-01	.9000	.3886-03	.4661-03	.3097	2.397	529.5
116	1545.0	434 00	338 00	.7145-02	.8570-02	.8570-02	.9000	.3107-03	.3727-03	.2479	2.062	528.7
116	1545.0	443.00	339.00	.2663-01	.3198-01	.3198-01	.9000	.1158-02	.1391-02	.9171	5.264	534.6

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2497

OH84B 60-O OMS POD

(R4US02)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
129	3.686	8.000	29.95	-4.052	853.2	1352	97.95	.8740-01	3.915	3881.	.2408-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
129	4912-01	2108-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
129	1325.0	428.60	298 00	.5407-01	.6530-01	.6530-01	.9000	.2656-02	.3208-02	2.088	15.34	565.5
129	1325.0	489.20	299.00	.1323	.1613	.1613	.9000	.6501-02	.7923-02	4.896	32.16	598.6
129	1325.0	506.70	301.00	.3560-01	.4278-01	.4278-01	.9000	.1749-02	.2101-02	1.408	11.19	546.3
129	1325.0	511.30	300.00	.3846-01	.4628-01	.4628-01	.9000	.1889-02	.2273-02	1.512	11.18	551.6
129	1350.0	440.40	302 00	.9696-01	.1178	.1178	.9000	.4763-02	.5785-02	3.644	33.12	586.5
129	1350.0	458.60	303.00	.1120	.1359	.1359	.9000	.5500-02	.6677-02	4.217	30.68	584.9
129	1350.0	498.50	304 00	.4716-01	.5674-01	.5674-01	.9000	.2316-02	.2787-02	1.853	12.85	551.8
129	1350.0	515.50	306 00	.2870-01	.3446-01	.3446-01	.9000	.1410-02	.1693-02	1.140	8.202	542.7
129	1350.0	524.40	305 00	.2550-01	.3061-01	.3061-01	.9000	.1253-02	.1504-02	1.015	7.806	541.6
129	1375.0	421.60	308 00	.1247-01	.1503-01	.1503-01	.9000	.6125-03	.7383-03	4.859	6.717	558.4
129	1375.0	440.00	309 00	.1043	.1269	.1269	.9000	.5123-02	.6233-02	3.885	36.72	593.2
129	1375.0	460.00	310 00	.6815-01	.8216-01	.8216-01	.9000	.3348-02	.4036-02	2.654	16.77	558.9
129	1375.0	503.40	311 00	.2605-01	.3127-01	.3127-01	.9000	.1279-02	.1536-02	1.035	8.246	542.3
129	1375.0	531.00	312 00	.1395-01	.1672-01	.1672-01	.9000	.6853-03	.8213-03	5.593	4.037	535.5
129	1400.0	523.40	313 00	.1393-01	.1670-01	.1670-01	.9000	.6844-03	.8205-03	5.578	4.620	536.7
129	1425.0	415.10	315 00	.1371-01	.1648-01	.1648-01	.9000	.6734-03	.8096-03	5.411	3.881	548.1
129	1425.0	437.70	316 00	.6806-01	.8210-01	.8210-01	.9000	.3343-02	.4033-02	2.641	19.44	561.7
129	1425.0	466.30	317.00	.3043-01	.3653-01	.3653-01	.9000	.1495-02	.1794-02	1.211	7.109	541.6
129	1425.0	508.60	318 00	.1406-01	.1686-01	.1686-01	.9000	.6909-03	.8284-03	5.625	4.657	537.4
129	1425.0	536.50	319.00	.8400-02	.1006-01	.1006-01	.9000	.4126-03	.4943-03	.3378	2.522	533.1
129	1450.0	418.20	320.00	.9262-02	.1112-01	.1112-01	.9000	.4550-03	.5464-03	.3673	3.557	544.4

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2498

## OH84B 60-O OMS POD

(R4US02)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
129	1450.0	436.00	321.00	.3869-01	.4653-01	.4653-01	.9000	.1900-02	.2286-02	1.523	11.66	550.2
129	1450.0	468.20	322.00	.2523-01	.3027-01	.3027-01	.9000	.1239-02	.1487-02	1.005	6.794	540.8
129	1450.0	511.10	323.00	.8577-02	.1028-01	.1028-01	.9000	.4213-03	.5048-03	.3443	3.083	534.4
129	1450.0	526.60	325.00	.8131-02	.9741-02	.9741-02	.9000	.3994-03	.4785-03	.3267	2.710	533.7
129	1500.0	437.00	327.00	.2446-01	.2936-01	.2936-01	.9000	.1201-02	.1442-02	.9724	7.476	542.3
129	1500.0	470.40	328.00	.1753-01	.2100-01	.2100-01	.9000	.8610-03	.1032-02	.7034	4.374	534.7
129	1500.0	514.00	329.00	.6947-02	.8317-02	.8317-02	.9000	.3412-03	.4086-03	.2799	2.025	531.3
129	1500.0	532.30	331.00	.5389-02	.6447-02	.6447-02	.9000	.2647-03	.3167-03	.2180	1.440	528.1
129	1500.0	539.40	330.00	.4736-02	.5668-02	.5668-02	.9000	.2327-03	.2784-03	.1913	1.385	529.3
129	1525.0	424.00	332.00	.3349-02	.4009-02	.4009-02	.9000	.1645-03	.1969-03	.1352	1.046	529.8
129	1525.0	431.00	333.00	.1351-01	.1618-01	.1618-01	.9000	.6636-03	.7949-03	.5429	3.576	533.5
129	1525.0	440.00	334.00	.3683-01	.4422-01	.4422-01	.9000	.1809-02	.2172-02	1.463	9.314	543.2
129	1525.0	493.00	335.00	.8205-02	.9826-02	.9826-02	.9000	.4030-03	.4827-03	.3302	2.552	532.3
129	1545.0	434.00	338.00	.8128-02	.9731-02	.9731-02	.9000	.3993-03	.4780-03	.3276	2.721	531.1
129	1545.0	443.00	339.00	.2894-01	.3472-01	.3472-01	.9000	.1422-02	.1705-02	1.156	6.618	538.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2499

OH84B 60-0 OMS POD

(R4US03)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
152	1.983	7.980	29.96	-2.027	434.4	1309.	95.27	.4523-01	2.016	3818.	.1281-02	.7667-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
152	.3505-01	.2881-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TH DEG R
152	1325.0	428.60	298.00	.8095-02	.9730-02	.9750-02	.9000	.2837-03	.3418-03	.2187	1.629	537.9
152	1325 0	489.20	299.00	.7100-01	.8596-01	.8596-01	.9000	.2489-02	.3013-02	1.871	12.55	557.0
152	1325 0	506.70	301.00	.2938-01	.3539-01	.3539-01	.9000	.1030-02	.1240-02	.7948	6.346	537.0
152	1325 0	511.30	300.00	.4478-01	.5401-01	.5401-01	.9000	.1570-02	.1893-02	1.202	8.933	542.8
152	1350.0	440 40	302.00	.1006-01	.1212-01	.1212-01	.9000	.3525-03	.4248-03	.2709	2.519	540.1
152	1350.0	458.60	303 00	.1156	.1403	.1403	.9000	.4052-02	.4918-02	3.009	22.10	565.9
152	1350.0	498 50	304.00	.5660-01	.6832-01	.6832-01	.9000	.1984-02	.2395-02	1.513	10.52	545.9
152	1350 0	515.50	306.00	.1778-01	.2139-01	.2139-01	.9000	.6230-03	.7498-03	.4823	3.483	534.6
152	1350 0	524 40	305.00	.2253-01	.2712-01	.2712-01	.9000	.7897-03	.9507-03	6104	4 709	535.7
152	1375 0	421.60	308.00	.2345-02	.2826-02	.2826-02	.9000	.8220-04	.9904-04	.6326-01	.8830	539.1
152	1375.0	440 00	309 00	.1129-01	.1361-01	.1361-01	.9000	.3959-03	.4770-03	.3046	2.958	539.2
152	1375.0	460 00	310.00	.1167	.1416	.1416	.9000	.4092-02	.4962-02	3.055	19.27	562 0
152	1375 0	503 40	311.00	.2424-01	.2918-01	.2918-01	.9000	.8495-03	.1023-02	6556	5.235	536.9
152	1375 0	531 00	312.00	.1327-01	.1595-01	.1595-01	.9000	.4651-03	.5594-03	.3612	2.612	532.1
152	1400 0	523.40	313 00	.1415-01	.1702-01	.1702-01	.9000	.4959-03	.5967-03	.3844	3.189	533.5
152	1425.0	415.10	315.00	.8500-02	.1024-01	.1024-01	.9000	.2979-03	.3588-03	.2297	1.656	537 6
152	1425 0	437 70	316 00	.1404-01	.1690-01	.1690-01	.9000	.4921-03	.5925-03	.3802	2.835	536 1
152	1425 0	466.30	317.00	.6209-01	.7489-01	.7489-01	.9000	.2176-02	.2625-02	1 666	9.774	543.0
152	1425.0	508.60	318.00	.1086-01	.1307-01	.1307-01	.9000	.3808-03	.4580-03	.2958	2 456	531 9
152	1425 0	536 50	319.00	.9019-02	.1084-01	.1084-01	.9000	.3161-03	.3800-03	.2459	1.839	530.7
152	1450 0	418 20	320 00	.7058-02	.8498-02	.8498-02	.9000	.2474-03	.2979-03	.1912	1.859	536.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2500

OH84B 60-0 OMS POD

(R4US03)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
152	1450.0	436.00	321.00	.1154-01	.1389-01	.1389-01	.9000	.4045-03	.4869-03	.3130	2.415	535.0
152	1450.0	468.20	322.00	.4688-01	.5652-01	.5652-01	.9000	.1643-02	.1981-02	1.261	8.522	541.4
152	1450.0	511.10	323.00	.7701-02	.9258-02	.9258-02	.9000	.2699-03	.3245-03	.2100	1.884	530.6
152	1450.0	526.60	325.00	.9466-02	.1138-01	.1138-01	.9000	.3318-03	.3989-03	.2581	2.144	530.9
152	1500.0	437.00	327.00	.8161-02	.9913-02	.9913-02	.9000	.2861-03	.3440-03	.2224	1.720	531.2
152	1500.0	470.40	328.00	.2380-01	.2862-01	.2862-01	.9000	.8340-03	.1003-02	.6473	4.029	532.6
152	1500.0	514.00	329.00	.5186-02	.6231-02	.6231-02	.9000	.1818-03	.2184-03	.1418	1.027	528.5
152	1500.0	532.30	331.00	.6813-02	.8181-02	.8181-02	.9000	.2388-03	.2868-03	.1868	1.235	526.6
152	1500.0	539.40	330.00	.5017-02	.6026-02	.6026-02	.9000	.1758-03	.2112-03	.1373	.9951	527.7
152	1525.0	424.00	332.00	.2412-02	.2898-02	.2898-02	.9000	.8454-04	.1016-03	6603-01	.5115	527.7
152	1525.0	431.00	333.00	.7650-02	.9194-02	.9194-02	.9000	.2681-03	.3222-03	.2090	1.380	529.3
152	1525.0	440.00	334.00	.1362-01	.1638-01	.1638-01	.9000	.4775-03	.5741-03	.3713	2.379	531.1
152	1525.0	493.00	335.00	.1930-01	.2322-01	.2322-01	.9000	.6765-03	.8140-03	.5241	4.047	534.0
152	1545.0	434.00	338.00	.6298-02	.7568-02	.7568-02	.9000	.2208-03	.2653-03	.1722	1.432	528.7
152	1545.0	443.00	339.00	.1449-01	.1741-01	.1741-01	.9000	.5077-03	.6104-03	.3951	2.272	530.5



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2501

OH84B 60-0 OMS POD

(R4US03)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
113	2.997	7.990	29 96	-2.021	672.2	1327.	96.36	.6942-01	3.102	3845.	.1944-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
113	.4358-01	.2342-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
113	1325.0	428.60	298.00	.1450-01	.1745-01	.1745-01	.9000	.6320-03	.7605-03	.4960	3.688	541.8
113	1325.0	489.20	299.00	.1121	.1361	.1361	.9000	.4885-02	.5932-02	3.669	24.38	575.6
113	1325.0	506.70	301.00	.3748-01	.4510-01	.4510-01	.9000	.1634-02	.1966-02	1.283	10.23	541.1
113	1325.0	511.30	300.00	.5808-01	.7004-01	.7004-01	.9000	.2531-02	.3053-02	1.966	14.56	550.0
113	1350.0	440.40	302.00	.3227-01	.3890-01	.3890-01	.9000	.1406-02	.1695-02	1.096	10.15	547.7
113	1350.0	458.60	303.00	.1481	.1802	.1802	.9000	.6453-02	.7856-02	4.795	34.91	583.6
113	1350.0	498.50	304.00	.4698-01	.5659-01	.5659-01	.9000	.2048-02	.2466-02	1.600	11.13	545.3
113	1350.0	515.50	306.00	.2454-01	.2949-01	.2949-01	.9000	.1069-02	.1285-02	.2440	6.086	537.4
113	1350.0	524.40	305.00	.2767-01	.3327-01	.3327-01	.9000	.1206-02	.1450-02	.9498	7.315	539.0
113	1375.0	421.60	308.00	.3866-02	.4652-02	.4652-02	.9000	.1685-03	.2027-03	.1323	1.845	541.2
113	1375.0	440.00	309.00	.3311-01	.3991-01	.3991-01	.9000	.1443-02	.1739-02	1.125	10.87	547.4
113	1375.0	460.00	310.00	.1099	.1330	.1330	.9000	.4788-02	.5798-02	3.646	22.96	565.2
113	1375.0	503.40	311.00	.2384-01	.2865-01	.2865-01	.9000	.1039-02	.1249-02	.8194	6.540	537.9
113	1375.0	531.00	312.00	.1552-01	.1864-01	.1864-01	.9000	.6765-03	.8122-03	.5371	3.882	532.7
113	1400.0	523.40	313.00	.1370-01	.1646-01	.1646-01	.9000	.5973-03	.7173-03	.4734	3.926	534.1
113	1425.0	415.10	315.00	.1327-01	.1596-01	.1596-01	.9000	.5783-03	.6956-03	.4550	3.276	539.9
113	1425.0	437.70	316.00	.1710-01	.2056-01	.2056-01	.9000	.7454-03	.8960-03	.5885	4.385	537.2
113	1425.0	466.30	317.00	.5557-01	.6691-01	.6691-01	.9000	.2422-02	.2916-02	1.895	11.11	544.0
113	1425.0	508.60	318.00	.1281-01	.1539-01	.1539-01	.9000	.5585-03	.6708-03	.4426	3.671	534.1
113	1425.0	536.50	319.00	.1040-01	.1248-01	.1248-01	.9000	.4533-03	.5440-03	.3607	2.696	531.0
113	1450.0	418.20	320.00	.9693-02	.1165-01	.1165-01	.9000	.4225-03	.5079-03	.3332	3.237	538.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2502

OH84B 60-0 OMS POD

(R4US03)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
113	1450 0	436.00	321.00	.1032-01	.1240-01	.1240-01	.9000	.4497-03	.5403-03	.3560	2.747	535.2
113	1450.0	468.20	322.00	.4538-01	.5463-01	.5463-01	.9000	.1978-02	.2381-02	1.549	10.46	543.5
113	1450 0	511.10	323.00	.1137-01	.1365-01	.1365-01	.9000	.4956-03	.5951-03	.3933	3.524	533.1
113	1450 0	526.60	325.00	.8758-02	.1051-01	.1051-01	.9000	.3817-03	.4581-03	.3030	2.524	530.7
113	1500 0	437.00	327.00	.7656-02	.9187-02	.9187-02	.9000	.3337-03	.4004-03	.2656	2.055	530.6
113	1500 0	470.40	328.00	.2696-01	.3239-01	.3239-01	.9000	.1175-02	.1412-02	.9299	5.780	535.3
113	1500 0	514.00	329.00	.6486-02	.7779-02	.7779-02	.9000	.2827-03	.3390-03	.2257	1.635	526.3
113	1500 0	532.30	331.00	.6307-02	.7561-02	.7561-02	.9000	.2749-03	.3295-03	.2200	1.454	526.4
113	1500 0	539.40	330.00	.4972-02	.5961-02	.5961-02	.9000	.2167-03	.2598-03	.1733	1.256	527.1
113	1525.0	424.00	332.00	.2878-02	.3451-02	.3451-02	.9000	.1254-03	.1504-03	.1002	.7763	527.7
113	1525.0	431.00	333.00	.7301-02	.8758-02	.8758-02	.9000	.3182-03	.3817-03	.2538	1.675	529.2
113	1525 0	440.00	334.00	.1644-01	.1974-01	.1974-01	.9000	.7166-03	.8601-03	.5697	3.649	531.7
113	1525 0	493.00	335.00	.1381-01	.1657-01	.1657-01	.9000	.6019-03	.7224-03	.4790	3.704	530.9
113	1545.0	434.00	338.00	.6079-02	.7291-02	.7291-02	.9000	.2650-03	.3178-03	.2115	1.759	528.4
113	1545 0	443.00	339.00	.1647-01	.1977-01	.1977-01	.9000	.7178-03	.8614-03	.5711	3.284	531.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2503

OH84B 60-0 OMS POD

(R4US03)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -2.000 ELEVON = .0000  
 BDFLAP = .0000 SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
126	3.688	8.000	29.95	-2.013	853 6	1352.	97.95	8744-01	3.917	3881.	.2409-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
126	.4913-01	2107-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
126	1325.0	428.60	298.00	.1434-01	.1722-01	.1722-01	.9000	.7044-03	.8460-03	.5688	4.224	544.2
126	1325.0	489.20	299.00	.1144	.1387	.1387	.9000	.5619-02	.6817-02	4.324	28.64	582.1
126	1325.0	506.70	301.00	.5010-01	.6024-01	.6024-01	.9000	.2462-02	.2960-02	1.977	15.70	548.5
126	1325.0	511.30	300.00	.5889-01	.7087-01	.7087-01	.9000	.2894-02	.3482-02	2.314	17.11	552.0
126	1350.0	440.40	302.00	.2992-01	.3600-01	.3600-01	.9000	.1470-02	.1769-02	1.177	10.89	551.0
126	1350.0	458.60	303.00	.1542	.1875	.1875	.9000	.7575-02	.9211-02	5.762	41.80	591.0
126	1350.0	498.50	304.00	.4588-01	.5515-01	.5515-01	.9000	.2254-02	.2710-02	1.812	12.60	547.7
126	1350.0	515.50	306.00	.2789-01	.3346-01	.3346-01	.9000	.1370-02	.1644-02	1.111	7.997	540.7
126	1350.0	524.40	305.00	.2502-01	.3002-01	.3002-01	.9000	.1229-02	.1475-02	.9972	7.675	540.4
126	1375.0	421.60	308.00	.3842-02	.4615-02	.4615-02	.9000	.1888-03	.2268-03	.1523	2.120	544.9
126	1375.0	440.00	309.00	.2398-01	.2882-01	.2882-01	.9000	.1178-02	.1416-02	.9481	9.170	547.0
126	1375.0	460.00	310.00	.1143	.1383	.1383	.9000	.5618-02	.6795-02	4.383	27.52	571.5
126	1375.0	503.40	311.00	.2471-01	.2965-01	.2965-01	.9000	.1214-02	.1457-02	.9853	7.855	540.2
126	1375.0	531.00	312.00	.1522-01	.1824-01	.1824-01	.9000	.7477-03	.8960-03	.6108	4.410	534.8
126	1400.0	523.40	313.00	.1343-01	.1609-01	.1609-01	.9000	.6597-03	.7905-03	.5388	4.466	535.0
126	1425.0	415.10	315.00	.1030-01	.1237-01	.1237-01	.9000	.5061-03	.6076-03	.4096	2.946	542.4
126	1425.0	437.70	316.00	.2150-01	.2580-01	.2580-01	.9000	.1056-02	.1268-02	.8564	6.370	541.0
126	1425.0	466.30	317.00	.5604-01	.6733-01	.6733-01	.9000	.2753-02	.3308-02	2.219	13.00	545.8
126	1425.0	508.60	318.00	.1206-01	.1446-01	.1446-01	.9000	.5928-03	.7103-03	.4844	4.016	534.5
126	1425.0	536.50	319.00	.1033-01	.1238-01	.1238-01	.9000	.5078-03	.6082-03	.4157	3.104	533.0
126	1450.0	418.20	320.00	.9165-02	.1100-01	.1100-01	.9000	.4503-03	.5404-03	.3652	3.543	540.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2504

OH84B 60-0 OMS POD

(R4US03)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
126	1450.0	436.00	321.00	.1277-01	.1532-01	.1532-01	.9000	.6277-03	.7527-03	.5108	3.936	537.9
126	1450.0	468.20	322.00	.4295-01	.5161-01	.5161-01	.9000	.2110-02	.2536-02	1.702	11.48	545.4
126	1450.0	511.10	323.00	.1097-01	.1314-01	.1314-01	.9000	.5388-03	.6455-03	.4403	3.943	534.4
126	1450.0	526.60	325.00	.8871-02	.1062-01	.1062-01	.9000	.4359-03	.5220-03	.3570	2.963	532.6
126	1500.0	437.00	327.00	.1006-01	.1205-01	.1205-01	.9000	.4944-03	.5922-03	.4043	3.122	533.9
126	1500.0	470.40	328.00	.2839-01	.3404-01	.3404-01	.9000	.1395-02	.1673-02	1.135	7.046	537.9
126	1500.0	514.00	329.00	.6819-02	.8162-02	.8162-02	.9000	.3351-03	.4010-03	.2753	1.992	530.1
126	1500.0	532.30	331.00	.5682-02	.6796-02	.6796-02	.9000	.2792-03	.3339-03	.2302	1.522	527.0
126	1500.0	539.40	330.00	.5198-02	.6219-02	.6219-02	.9000	.2554-03	.3055-03	.2102	1.523	528.4
126	1525.0	424.00	332.00	.2989-02	.3577-02	.3577-02	.9000	.1469-03	.1758-03	.1208	.9351	529.2
126	1525.0	431.00	333.00	.7955-02	.9524-02	.9524-02	.9000	.3909-03	.4679-03	.3208	2.116	531.0
126	1525.0	440.00	334.00	.1934-01	.2317-01	.2317-01	.9000	.9501-03	.1138-02	.7764	4.965	534.6
126	1525.0	493.00	335.00	.1211-01	.1451-01	.1451-01	.9000	.5952-03	.7129-03	.4873	3.765	533.0
126	1545.0	434.00	338.00	.6098-02	.7298-02	.7298-02	.9000	.2996-03	.3586-03	.2463	2.047	529.8
126	1545.0	443.00	339.00	.1714-01	.2053-01	.2053-01	.9000	.8422-03	.1009-02	.6893	3.959	533.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US04)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
149	2.015	7.980	29.95	-1.011	435.2	1297.	94.40	.4531-01	2.020	3801.	.1295-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
149	3503-01	2862-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
149	1325.0	428.60	298.00	.2601-02	.3136-02	.3136-02	.9000	.9112-04	.1098-03	.6932-01	.5169	536.0
149	1325.0	489.20	299.00	.2281-01	.2752-01	.2752-01	.9000	.7991-03	.9641-03	.6053	4.097	539.1
149	1325.0	506.70	301.00	.3177-01	.3832-01	.3832-01	.9000	.1113-02	.1342-02	.8444	6.739	538.0
149	1325.0	511.30	300.00	.3636-01	.4461-01	.4461-01	.9000	.1295-02	.1563-02	.9787	7.281	540.6
149	1350.0	440.40	302.00	.3667-02	.4422-02	.4422-02	.9000	.1285-03	.1549-03	.9762-01	.9095	536.7
149	1350.0	458.60	303.00	.1972-01	.2378-01	.2378-01	.9000	.6906-03	.8330-03	.5239	3.902	538.1
149	1350.0	498.50	304.00	.3643-01	.4395-01	.4395-01	.9000	.1276-02	.1540-02	.9663	6.743	539.4
149	1350.0	515.50	306.00	.2137-01	.2576-01	.2576-01	.9000	.7485-03	.9023-03	.5694	4.109	535.9
149	1350.0	524.40	305.00	.2061-01	.2484-01	.2484-01	.9000	.7218-03	.8700-03	.5495	4.240	535.4
149	1375.0	421.60	308.00	.1501-02	.1811-02	.1811-02	.9000	.5259-04	.6343-04	.3990-01	.5572	538.0
149	1375.0	440.00	309.00	.4074-02	.4912-02	.4912-02	.9000	.1427-03	.1720-03	.1085	1.056	536.1
149	1375.0	460.00	310.00	.2459-01	.2965-01	.2965-01	.9000	.8614-03	.1039-02	.6548	4.184	536.5
149	1375.0	503.40	311.00	.1707-01	.2057-01	.2057-01	.9000	.5981-03	.7206-03	.4562	3.649	533.9
149	1375.0	531.00	312.00	.1198-01	.1443-01	.1443-01	.9000	.4196-03	.5054-03	.3207	2.318	532.5
149	1400.0	523.40	313.00	.1578-01	.1902-01	.1902-01	.9000	.5528-03	.6662-03	.4211	3.491	534.9
149	1425.0	415.10	315.00	.3093-02	.3729-02	.3729-02	.9000	.1083-03	.1306-03	.8235-01	.5941	536.5
149	1425.0	437.70	316.00	.5555-02	.6693-02	.6693-02	.9000	.1946-03	.2344-03	.1484	1.108	533.8
149	1425.0	466.30	317.00	.2533-01	.3053-01	.3053-01	.9000	.9872-03	.1069-02	.6756	3.979	535.1
149	1425.0	508.60	318.00	.8299-02	.9993-02	.9993-02	.9000	.2907-03	.3500-03	.2223	1.846	531.8
149	1425.0	536.50	319.00	.9854-02	.1187-01	.1187-01	.9000	.3452-03	.4156-03	.2640	1.972	532.0
149	1450.0	418.20	320.00	.2482-02	.2992-02	.2992-02	.9000	.8695-04	.1048-03	.6623-01	.6444	535.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US04)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(JAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
149	1450.0	436.00	321.00	.5511-02	.6639-02	.6639-02	.9000	.1930-03	.2325-03	.1474	1.138	533.3
149	1450.0	468.20	322.00	.1913-01	.2306-01	.2306-01	.9000	.6702-03	.8077-03	.5108	3.465	534.6
149	1450.0	511.10	323.00	.6890-02	.8294-02	.8294-02	.9000	.2413-03	.2905-03	.1848	1.658	530.8
149	1450.0	526.60	325.00	.9860-02	.1187-01	.1187-01	.9000	.3454-03	.4159-03	.2641	2.193	531.9
149	1500.0	437.00	327.00	.5277-02	.6352-02	.6352-02	.9000	.1848-03	.2225-03	.1417	1.096	530.3
149	1500.0	470.40	328.00	.1167-01	.1406-01	.1406-01	.9000	.4089-03	.4923-03	.3131	1.950	531.1
149	1500.0	514.00	329.00	.5117-02	.6157-02	.6157-02	.9000	.1792-03	.2157-03	.1376	.9961	529.2
149	1500.0	532.30	331.00	.7155-02	.8607-02	.8607-02	.9000	.2506-03	.3015-03	.1927	1.273	527.7
149	1500.0	539.40	330.00	.6302-02	.7582-02	.7582-02	.9000	.2207-03	.2656-03	.1695	1.228	528.8
149	1525.0	424.00	332.00	.9658-03	.1162-02	.1162-02	.9000	.3383-04	.4069-04	.2601-01	.2015	527.9
149	1525.0	431.00	333.00	.3795-02	.4566-02	.4566-02	.9000	.1329-03	.1599-03	.1021	.6740	528.8
149	1525.0	440.00	334.00	.8504-02	.1024-01	.1024-01	.9000	.2979-03	.3585-03	.2284	1.464	529.8
149	1525.0	493.00	335.00	.9135-02	.1099-01	.1099-01	.9000	.3200-03	.3851-03	.2453	1.898	530.1
149	1545.0	434.00	338.00	.2561-02	.3081-02	.3081-02	.9000	.8970-04	.1079-03	.6895-01	.5736	528.0
149	1545.0	443.00	339.00	.7597-02	.9141-02	.9141-02	.9000	.2661-03	.3202-03	.2042	1.176	529.1

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O OMS POD

(R4US04)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -1.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
110	3.010	7.990	29 96	-.9974	670.7	1321.	95.92	.6926-01	3.095	3836.	.1949-02	.7719-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) - = 0175
110	.4350-01	2338-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
110	1325.0	428.60	298.00	.6168-02	.7423-02	.7423-02	.9000	.2683-03	.3229-03	.2097	1.561	539.2
110	1325.0	489.20	299.00	.7220-01	.8739-01	.8739-01	.9000	.3141-02	.3801-02	2.387	15.98	560.7
110	1325.0	506.70	301.00	.3318-01	.3994-01	.3994-01	.9000	.1443-02	.1737-02	1.127	8.981	540.1
110	1325.0	511.30	300.00	.4785-01	.5771-01	.5771-01	.9000	.2082-02	.2510-02	1.610	11.93	547.3
110	1350.0	440.40	302.00	.7560-02	.9100-02	.9100-02	.9000	.3289-03	.3959-03	.2565	2.385	540.6
110	1350.0	458.60	303.00	.9323-01	.1130	.1130	.9000	.4055-02	.4915-02	3.063	22.50	565.5
110	1350.0	498.50	304.00	.5219-01	.6296-01	.6296-01	.9000	.2270-02	.2739-02	1.754	12.18	548.2
110	1350.0	515.50	306.00	.2034-01	.2446-01	.2446-01	.9000	.8846-03	.1064-02	6928	4.995	537.5
110	1350.0	524.40	305.00	.2431-01	.2925-01	.2925-01	.9000	.1057-02	.1272-02	8264	6.365	539.1
110	1375.0	421.60	308.00	.2416-02	.2908-02	.2908-02	.9000	.1051-03	.1265-03	8205-01	1.145	540.0
110	1375.0	440.00	309.00	.9117-02	.1098-01	.1098-01	.9000	.3966-03	.4775-03	3092	3.000	541.0
110	1375.0	460.00	310.00	.7491-01	.9053-01	.9053-01	.9000	.3259-02	.3938-02	2.495	15.79	555.0
110	1375.0	503.40	311.00	.2166-01	.2606-01	.2606-01	.9000	.9423-03	.1134-02	7370	5.881	538.5
110	1375.0	531.00	312.00	.1370-01	.1646-01	.1646-01	.9000	.5958-03	.7159-03	.4688	3.386	533.8
110	1400.0	523.40	313.00	.1407-01	.1692-01	.1692-01	.9000	.6122-03	.7360-03	.4807	3.984	535.5
110	1425.0	415.10	315.00	.6291-02	.7568-02	.7568-02	.9000	.2736-03	.3292-03	.2141	1.543	538.4
110	1425.0	437.70	316.00	.1209-01	.1454-01	.1454-01	.9000	.5260-03	.6327-03	.4119	3.069	537.6
110	1425.0	466.30	317.00	.4522-01	.5445-01	.5445-01	.9000	.1967-02	.2369-02	1.532	8.990	541.9
110	1425.0	508.60	318.00	.8996-02	.1081-01	.1081-01	.9000	.3913-03	.4701-03	3085	2.560	532.5
110	1425.0	536.50	319.00	.9604-02	.1153-01	.1153-01	.9000	.4178-03	.5018-03	.3296	2.463	531.7
110	1450.0	418.20	320.00	.5195-02	.6248-02	.6248-02	.9000	.2260-03	.2718-03	1771	1.722	536.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 QMS POD

(R4US04)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
110	1450.0	436.00	321.00	.1050-01	.1263-01	.1263-01	.9000	.4568-03	.5493-03	.3583	2.763	536.3
110	1450.0	468.20	322.00	.3462-01	.4170-01	.4170-01	.9000	.1506-02	.1814-02	1.173	7.926	541.9
110	1450.0	511.10	323.00	.6597-02	.7922-02	.7922-02	.9000	.2870-03	.3446-03	.2267	2.034	530.7
110	1450.0	526.60	325.00	.8973-02	.1078-01	.1078-01	.9000	.3903-03	.4688-03	.3078	2.556	532.0
110	1500.0	437.00	327.00	.7491-02	.8996-02	.8996-02	.9000	.3259-03	.3913-03	.2573	1.989	531.2
110	1500.0	470.40	328.00	.1901-01	.2284-01	.2284-01	.9000	.8270-03	.9935-03	.6515	4.055	532.8
110	1500.0	514.00	329.00	.5474-02	.6570-02	.6570-02	.9000	.2381-03	.2858-03	1.886	1.366	528.5
110	1500.0	532.30	331.00	.6374-02	.7648-02	.7648-02	.9000	.2773-03	.3327-03	.2198	1.452	527.8
110	1500.0	539.40	330.00	.4861-02	.5833-02	.5833-02	.9000	.2115-03	.2537-03	.1676	1.214	528.3
110	1525.0	424.00	332.00	.1609-02	.1930-02	.1930-02	.9000	.6998-04	.8396-04	.5549-01	.4298	527.7
110	1525.0	431.00	333.00	.5469-02	.6564-02	.6564-02	.9000	.2379-03	.2855-03	1.883	1.243	529.0
110	1525.0	440.00	334.00	.1254-01	.1506-01	.1506-01	.9000	.5456-03	.6552-03	.4309	2.761	531.0
110	1525.0	493.00	335.00	.1510-01	.1814-01	.1814-01	.9000	.6568-03	.7889-03	.5181	4.005	531.8
110	1545.0	434.00	338.00	.4088-02	.4905-02	.4905-02	.9000	.1778-03	.2134-03	.1410	1.173	527.9
110	1545.0	443.00	339.00	.1164-01	.1397-01	.1397-01	.9000	.5062-03	.6077-03	.4003	2.303	529.9



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2509

OH84B 60-0 OMS POD

(R4US04)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -1.000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
122	3.694	8.000	30.04	-.9752	852.2	1349.	97.73	.8729-01	3.911	3877.	.2411-02	.7864-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
122	.4907-01	.2106-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
122	1325.0	428.60	298 00	.8016-02	.9623-02	.9623-02	.9000	.3934-03	.4722-03	.3178	2.364	540.9
122	1325.0	489.20	299.00	.9139-01	.1106	.1106	.9000	.4485-02	.5429-02	3.478	23.14	573.1
122	1325.0	506.70	301 00	.3961-01	.4760-01	.4760-01	.9000	.1944-02	.2336-02	1.561	12.41	545.6
122	1325.0	511.30	300.00	.5490-01	.6610-01	.6610-01	.9000	.2694-02	.3244-02	2.144	15.85	553.0
122	1350.0	440.40	302.00	.1172-01	.1407-01	.1407-01	.9000	.5750-03	.6907-03	.4631	4.300	543.3
122	1350.0	458.60	303 00	.1146	.1390	.1390	.9000	.5626-02	.6823-02	4.323	31.53	580.2
122	1350.0	498.50	304.00	.4985-01	.5998-01	.5998-01	.9000	.2447-02	.2943-02	1.955	13.57	549.6
122	1350.0	515.50	306.00	.2333-01	.2800-01	.2800-01	.9000	.1145-02	.1374-02	.9250	6.660	540.5
122	1350.0	524.40	305 00	.2424-01	.2909-01	.2909-01	.9000	.1189-02	.1428-02	9610	7.395	540.7
122	1375.0	421.60	308.00	.2896-02	.3479-02	.3479-02	.9000	.1421-03	.1707-03	.1146	1.596	542.6
122	1375.0	440.00	309 00	.1172-01	.1407-01	.1407-01	.9000	.5751-03	.6907-03	.4634	4.492	542.8
122	1375.0	460.00	310.00	.9490-01	.1146	.1146	.9000	.4657-02	.5626-02	3.648	22.97	565.4
122	1375.0	503.40	311 00	.2281-01	.2737-01	.2737-01	.9000	.1119-02	.1343-02	.9050	7.214	540.2
122	1375.0	531.00	312 00	.1388-01	.1664-01	.1664-01	.9000	.6812-03	.8166-03	.5544	4.003	534.9
122	1400.0	523.40	313 00	.1356-01	.1626-01	.1626-01	.9000	.6653-03	.7977-03	.5406	4.479	536.1
122	1425.0	415.10	315 00	.8446-02	.1014-01	.1014-01	.9000	.4145-03	.4975-03	.3350	2.412	540.4
122	1425.0	437.70	316 00	.1464-01	.1757-01	.1757-01	.9000	.7185-03	.8621-03	.5818	4.332	538.9
122	1425.0	466.30	317 00	.5813-01	.6989-01	.6989-01	.9000	.2853-02	.3430-02	2.287	13.39	547.1
122	1425.0	508.60	318 00	.1044-01	.1252-01	.1252-01	.9000	.5126-03	.6143-03	.4174	3.461	534.3
122	1425.0	536.50	319 00	.9152-02	.1096-01	.1096-01	.9000	.4491-03	.5380-03	.3665	2.737	532.7
122	1450.0	418.20	320 00	.6710-02	.8050-02	.8050-02	.9000	.3293-03	.3950-03	.2667	2.591	538.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2510

OH84B 60-0 OMS POD

(R4US04)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
122	1450.0	436.00	321.00	.1226-01	.1471-01	.1471-01	.9000	.6019-03	.7220-03	.4879	3.759	538.0
122	1450.0	468.20	322.00	.4632-01	.5567-01	.5567-01	.9000	.2273-02	.2732-02	1.825	12.31	546.0
122	1450.0	511.10	323.00	.7163-02	.8579-02	.8579-02	.9000	.3515-03	.4210-03	.2871	2.575	531.8
122	1450.0	526.60	325.00	.9191-02	.1101-01	.1101-01	.9000	.4510-03	.5404-03	.3679	3.052	533.1
122	1500.0	437.00	327.00	.9350-02	.1120-01	.1120-01	.9000	.4589-03	.5498-03	.3743	2.891	533.0
122	1500.0	470.40	328.00	.2371-01	.2843-01	.2843-01	.9000	.1164-02	.1395-02	.9485	5.693	535.3
122	1500.0	514.00	329.00	.5149-02	.6163-02	.6163-02	.9000	.2527-03	.3025-03	.2071	1.500	528.9
122	1500.0	532.30	331.00	.6148-02	.7356-02	.7356-02	.9000	.3017-03	.3610-03	.2477	1.637	527.5
122	1500.0	539.40	330.00	.4803-02	.5748-02	.5748-02	.9000	.2357-03	.2821-03	.1934	1.401	528.3
122	1525.0	424.00	332.00	.1986-02	.2376-02	.2376-02	.9000	.9745-04	.1166-03	.7995-01	.6192	528.2
122	1525.0	431.00	333.00	.6542-02	.7833-02	.7833-02	.9000	.3210-03	.3844-03	.2627	1.733	530.4
122	1525.0	440.00	334.00	.1524-01	.1826-01	.1826-01	.9000	.7477-03	.8959-03	.6095	3.900	533.6
122	1525.0	493.00	335.00	.1724-01	.2066-01	.2066-01	.9000	.8460-03	.1014-02	.6884	5.312	535.0
122	1545.0	434.00	338.00	.4654-02	.5570-02	.5570-02	.9000	.2284-03	.2734-03	.1871	1.556	529.3
122	1545.0	443.00	339.00	.1379-01	.1651-01	.1651-01	.9000	.6766-03	.8104-03	.5526	3.176	531.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2511

OH84B 60-0 OMS POD

(R4US06)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
10	.5027	7.900	29.95	.4910-02	98.66	1239.	91.88	1097-01	.4790	3712.	.3221-03	.7393-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
10	1692-01	.5712-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
10	1325.0	428.60	298.00	.5853-03	.7105-03	.7105-03	.9000	.9906-05	.1202-04	.6965-02	.5195-01	535.5
10	1325.0	489.20	299.00	.8900-03	.1080-02	.1080-02	.9000	.1506-04	.1828-04	.1058-01	.7175-01	535.9
10	1325.0	506.70	301.00	.8160-02	.9908-02	.9908-02	.9000	.1381-03	.1677-03	.9699-01	.7747	536.4
10	1325.0	511.30	300.00	.7217-02	.8765-02	.8765-02	.9000	.1221-03	.1483-03	.8568-01	.6384	537.2
10	1350.0	440.40	302.00	.1117-02	.1357-02	.1357-02	.9000	.1891-04	.2297-04	.1327-01	.1236	537.0
10	1350.0	458.60	303.00	.6243-02	.7584-02	.7584-02	.9000	.1057-03	.1283-03	.7406-01	.5517	537.8
10	1350.0	498.50	304.00	.6208-02	.7537-02	.7537-02	.9000	.1051-03	.1276-03	.7378-01	.5157	536.3
10	1350.0	515.50	306.00	.1237-01	.1503-01	.1503-01	.9000	.2094-03	.2543-03	.1469	1.060	537.0
10	1350.0	524.40	305.00	.7590-02	.9215-02	.9215-02	.9000	.1285-03	.1560-03	.9020-01	.6956	536.4
10	1375.0	421.60	308.00	.5810-03	.7056-03	.7056-03	.9000	.9833-05	.1194-04	.6900-02	.9642-01	537.0
10	1375.0	440.00	309.00	.2175-02	.2642-02	.2642-02	.9000	.3682-04	.4471-04	.2582-01	.2509	537.4
10	1375.0	460.00	310.00	.1045-01	.1269-01	.1269-01	.9000	.1768-03	.2147-03	.1241	.7925	537.0
10	1375.0	503.40	311.00	.6726-02	.8164-02	.8164-02	.9000	.1138-03	.1382-03	.8009-01	.6401	535.1
10	1375.0	531.00	312.00	.6302-02	.7649-02	.7649-02	.9000	.1066-03	.1294-03	.7502-01	.5415	535.3
10	1400.0	523.40	313.00	.1006-01	.1222-01	.1222-01	.9000	.1702-03	.2068-03	.1194	.9890	537.1
10	1425.0	415.10	315.00	.1790-02	.2174-02	.2174-02	.9000	.3029-04	.3679-04	.2126-01	.1533	536.9
10	1425.0	437.70	316.00	.5720-02	.6946-02	.6946-02	.9000	.9681-04	.1176-03	.6795-01	.5064	536.8
10	1425.0	466.30	317.00	.1104-01	.1340-01	.1340-01	.9000	.1868-03	.2268-03	.1312	.7720	536.5
10	1425.0	508.60	318.00	.6261-02	.7601-02	.7601-02	.9000	.1060-03	.1286-03	.7446-01	.6169	535.9
10	1425.0	536.50	319.00	.5773-02	.7008-02	.7008-02	.9000	.9770-04	.1186-03	.6869-01	.5123	535.6
10	1450.0	418.20	320.00	.1254-02	.1522-02	.1522-02	.9000	.2122-04	.2576-04	.1490-01	.1449	536.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2512

OH84B 60-0 OMS POD

(R4US06)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
10	1450.0	436.00	321.00	.3131-02	.3801-02	.3801-02	.9000	.5299-04	.6433-04	.3722-01	.2870	536.3
10	1450.0	468.20	322.00	.8762-02	.1064-01	.1064-01	.9000	.1483-03	.1800-03	.1042	.7063	536.0
10	1450.0	511.10	323.00	.5002-02	.6071-02	.6071-02	.9000	.8465-04	.1027-03	.5955-01	.5330	535.2
10	1450.0	526.60	325.00	.7667-02	.9309-02	.9309-02	.9000	.1298-03	.1575-03	.9114-01	.7550	536.3
10	1500.0	437.00	327.00	.1594-02	.1934-02	.1934-02	.9000	.2697-04	.3273-04	.1900-01	.1466	534.4
10	1500.0	470.40	328.00	.4389-02	.5325-02	.5325-02	.9000	.7427-04	.9012-04	.5230-01	.3253	534.4
10	1500.0	514.00	329.00	.3184-02	.3864-02	.3864-02	.9000	.5388-04	.6539-04	.3794-01	.2740	534.5
10	1500.0	532.30	331.00	.4598-02	.5579-02	.5579-02	.9000	.7782-04	.9441-04	.5485-01	.3613	533.8
10	1500.0	539.40	330.00	.3405-02	.4132-02	.4132-02	.9000	.5762-04	.6992-04	.4056-01	.2929	534.7
10	1525.0	424.00	332.00	.3085-03	.3743-03	.3743-03	.9000	.5220-05	.6334-05	.3679-02	.2840-01	534.0
10	1525.0	431.00	333.00	.7778-03	.9436-03	.9436-03	.9000	.1316-04	.1597-04	.9277-02	.6110-01	533.9
10	1525.0	440.00	334.00	.1691-02	.2051-02	.2051-02	.9000	.2862-04	.3471-04	.2018-01	.1291	533.6
10	1525.0	493.00	335.00	.3124-02	.3788-02	.3788-02	.9000	.5286-04	.6411-04	.3731-01	.2882	532.9
10	1545.0	434.00	338.00	.5783-03	.7017-03	.7017-03	.9000	.9787-05	.1188-04	.6893-02	.5716-01	534.3
10	1545.0	443.00	339.00	.1839-02	.2231-02	.2231-02	.9000	.3112-04	.3776-04	.2192-01	.1258	534.3

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2513

OH84B 60-O OMS POD

(R4US06)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
47	2 016	7.980	29.96	.2452-02	435.5	1297.	94.40	.4534-01	2.021	3801.	.1296-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
47	.3504-01	.2861-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
47	1325.0	428.60	298.00	.7000-03	.8433-03	.8433-03	.9000	.2453-04	.2955-04	.1871-01	.1396	534.0
47	1325.0	489.20	299.00	.8028-02	.9684-02	.9684-02	.9000	.2813-03	.3393-03	.2133	1.444	538.5
47	1325.0	506.70	301.00	.2535-01	.3058-01	.3058-01	.9000	.8882-03	.1072-02	.6729	5.367	539.1
47	1325.0	511.30	300.00	.3106-01	.3751-01	.3751-01	.9000	.1088-02	.1314-02	.8202	6.094	543.0
47	1350.0	440.40	302.00	.2184-02	.2633-02	.2633-02	.9000	.7651-04	.9224-04	.5817-01	.5421	536.3
47	1350.0	458.60	303.00	.5449-02	.6572-02	.6572-02	.9000	.1909-03	.2303-03	.1448	1.078	538.2
47	1350.0	498.50	304.00	.1680-01	.2027-01	.2027-01	.9000	.5886-03	.7101-03	.4461	3.114	538.7
47	1350.0	515.50	306.00	.2651-01	.3200-01	.3200-01	.9000	.9290-03	.1121-02	.7028	5.061	540.1
47	1350.0	524.40	305.00	.1361-01	.1642-01	.1642-01	.9000	.4770-03	.5752-03	.3621	2.791	537.4
47	1375.0	421.60	308.00	.8832-03	.1064-02	.1064-02	.9000	.3095-04	.3730-04	.2357-01	.3296	535.2
47	1375.0	440.00	309.00	.2898-02	.3494-02	.3494-02	.9000	.1015-03	.1224-03	.7715-01	.7501	536.7
47	1375.0	460.00	310.00	.8807-02	.1062-01	.1062-01	.9000	.3086-03	.3721-03	.2343	1.497	537.3
47	1375.0	503.40	311.00	.1051-01	.1266-01	.1266-01	.9000	.3681-03	.4437-03	.2802	2.239	535.5
47	1375.0	531.00	312.00	.9280-02	.1118-01	.1118-01	.9000	.3251-03	.3918-03	.2479	1.790	534.4
47	1400.0	523.40	313.00	.1828-01	.2205-01	.2205-01	.9000	.6405-03	.7725-03	.4858	4.020	538.2
47	1425.0	415.10	315.00	.3137-02	.3781-02	.3781-02	.9000	.1099-03	.1325-03	.8369-01	.6041	535.2
47	1425.0	437.70	316.00	.6969-02	.8401-02	.8401-02	.9000	.2442-03	.2944-03	.1856	1.384	536.4
47	1425.0	466.30	317.00	.2690-01	.3246-01	.3246-01	.9000	.9424-03	.1137-02	.7133	4.191	539.7
47	1425.0	508.60	318.00	.5016-02	.6045-02	.6045-02	.9000	.1757-03	.2118-03	.1339	1.110	534.9
47	1425.0	536.50	319.00	.8927-02	.1076-01	.1076-01	.9000	.3128-03	.3770-03	.2382	1.776	535.3
47	1450.0	418.20	320.00	.2597-02	.3131-02	.3131-02	.9000	.9101-04	.1097-03	.6929-01	.6742	535.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2514

OH84B 60-0 OMS POD

(R4US06)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
47	1450.0	436.00	321.00	6886-02	.8302-02	.8302-02	.9000	.2413-03	.2909-03	.1835	1.415	536.2
47	1450.0	468.20	322.00	2409-01	.2908-01	.2908-01	.9000	.8442-03	.1019-02	.6386	4.319	540.3
47	1450 0	511 10	323.00	4097-02	.4938-02	.4938-02	.9000	.1436-03	.1730-03	.1094	.9793	534.8
47	1450 0	526.60	325 00	1053-01	.1269-01	.1269-01	.9000	.3689-03	.4448-03	.2806	2.325	536.0
47	1500 0	437.00	327 00	.4624-02	.5572-02	.5572-02	.9000	.1620-03	.1952-03	.1234	9521	535 1
47	1500 0	470 40	328 00	1356-01	.1635-01	.1635-01	.9000	.4752-03	.5729-03	.3615	2 246	536.1
47	1500 0	514.00	329 00	.3287-02	.3961-02	.3961-02	.9000	.1152-03	.1388-03	.8785-01	.6346	534.0
47	1500 0	532.30	331 00	6219-02	.7492-02	.7492-02	.9000	.2179-03	.2625-03	.1664	1.096	533.2
47	1500 0	539 40	330 00	.5663-02	.6823-02	.6823-02	.9000	.1984-03	.2391-03	.1513	1.092	534 3
47	1525 0	424 00	332.00	.7659-03	.9225-03	.9225-03	.9000	.2684-04	.3232-04	.2050-01	.1584	532.8
47	1525.0	431.00	333 00	3064-02	.3691-02	.3691-02	9000	.1074-03	.1293-03	.8194-01	.5398	533.4
47	1525.0	440 00	334.00	.7435-02	.8957-02	.8957-02	.9000	.2605-03	.3138-03	.1987	1.271	533.9
47	1525.0	493 00	335 00	.1175-01	.1416-01	.1416-01	.9000	.4118-03	.4963-03	.3136	2.420	535 0
47	1545.0	434.00	338 00	.2034-02	.2450-02	.2450-02	9000	.7126-04	.8584-04	.5438-01	.4511	533.5
47	1545.0	443 00	339 00	.6107-02	.7360-02	.7360-02	.9000	.2140-03	.2579-03	.1630	.9353	534 9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2515

OH84B 60-0 OMS POD

(R4US06)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEC.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
76	3.039	7.990	29.97	.3283-06	671 6	1314.	95.41	.6936-01	3.099	3826.	.1962-02	.7678-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
76	.4349-01	.2329-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
76	1325.0	428.60	298.00	.1954-02	.2352-02	.2352-02	.9000	.8499-04	.1023-03	.6600-01	.4918	537.1
76	1325 0	489.20	299 00	.2418-01	.2916-01	.2916-01	.9000	.1051-02	.1268-02	.8084	5.455	544.8
76	1325.0	506.70	301.00	.3614-01	.4357-01	.4357-01	.9000	.1572-02	.1895-02	1.212	9.648	542.8
76	1325.0	511.30	300.00	.3286-01	.3962-01	.3962-01	.9000	.1429-02	.1723-02	1.099	8.161	544.4
76	1350 0	440.40	302 00	.3240-02	.3903-02	.3903-02	.9000	.1409-03	.1697-03	.1091	1.015	539.7
76	1350.0	458.60	303.00	.9916-02	.1195-01	.1195-01	.9000	.4312-03	.5196-03	.3332	2.478	541.0
76	1350 0	498.50	304.00	.3783-01	.4562-01	.4562-01	.9000	.1645-02	.1984-02	1.265	8.806	544.5
76	1350 0	515.50	306.00	.2747-01	.3310-01	.3310-01	.9000	.1195-02	.1440-02	.9228	6.641	541.3
76	1350 0	524 40	305 00	.1834-01	.2208-01	.2208-01	.9000	.7974-03	.9602-03	6181	4.761	538.6
76	1375.0	421.60	308 00	.1223-02	.1473-02	.1473-02	.9000	.5319-04	.6404-04	.4122-01	.5755	538.6
76	1375.0	440.00	309 00	.3310-02	.3986-02	.3986-02	.9000	.1440-03	.1733-03	.1116	1 084	538.4
76	1375 0	460.00	310 00	.1894-01	.2282-01	.2282-01	.9000	.8237-03	.9922-03	.6372	4 064	540.1
76	1375 0	503.40	311 00	.1836-01	.2211-01	.2211-01	.9000	.7987-03	.9613-03	.6200	4.950	537.3
76	1375.0	531.00	312 00	.1217-01	.1464-01	.1464-01	.9000	.5293-03	.6366-03	.4127	2.981	534 0
76	1400 0	523 40	313 00	.1415-01	.1703-01	.1703-01	.9000	.6153-03	.7405-03	.4779	3.958	536 9
76	1425 0	415.10	315 00	.3150-02	.3791-02	.3791-02	.9000	.1370-03	.1649-03	.1063	.7669	537.3
76	1425 0	437.70	316 00	.8556-02	.1030-01	.1030-01	.9000	.3721-03	.4478-03	.2889	2.153	537.1
76	1425 0	466 30	317 00	.3368-01	.4059-01	.4059-01	.9000	.1465-02	.1765-02	1 131	6 640	541 5
76	1425 0	508 60	318.00	.6629-02	.8212-02	.8212-02	.9000	.2970-03	.3571-03	.2317	1.922	533 6
76	1425 0	536 50	319 00	.9693-02	.1165-01	.1165-01	.9000	.4215-03	.5069-03	.3290	2.457	533 2
76	1450 0	418 20	320 00	.3238-02	.3896-02	.3896-02	.9000	.1408-03	.1694-03	.1095	1 065	535 9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US06)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
76	1450.0	436.00	321.00	.7911-02	.9519-02	.9519-02	.9000	.3440-03	.4140-03	.2676	2.064	535.9
76	1450.0	468.20	322.00	.2916-01	.3514-01	.3514-01	.9000	.1268-02	.1528-02	.9790	6.617	541.7
76	1450.0	511.10	323 00	.5241-02	.6300-02	.6300-02	.9000	.2279-03	.2740-03	.1782	1.597	532.0
76	1450.0	526 60	325 00	.8106-02	.9746-02	.9746-02	.9000	.3525-03	.4239-03	.2752	2.283	533 1
76	1500.0	437 00	327 00	.5652-02	.6793-02	.6793-02	.9000	.2458-03	.2954-03	.1922	1.486	531 6
76	1500.0	470 40	328 00	.1848-01	.2223-01	.2223-01	.9000	.8037-03	.9666-03	.6265	3.897	534.1
76	1500 0	514 00	329 00	.4082-02	.4903-02	.4903-02	.9000	.1775-03	.2132-03	.1392	1.008	529.2
76	1500.0	532 30	331 00	.5738-02	.6891-02	.6891-02	.9000	.2495-03	.2997-03	.1958	1.293	528.8
76	1500.0	539 40	330.00	.4547-02	.5462-02	.5462-02	.9000	.1977-03	.2375-03	.1550	1 122	529 6
76	1525 0	424 00	332 00	.1003-02	.1204-02	.1204-02	.9000	.4362-04	.5238-04	.3426-01	.2653	528.1
76	1525 0	431 00	333 00	.3693-02	.4436-02	.4436-02	.9000	.1606-03	.1929-03	.1260	.8317	529.3
76	1525.0	440 00	334 00	.9426-02	.1132-01	.1132-01	.9000	.4099-03	.4925-03	.3212	2.059	530.1
76	1525.0	493 00	335 00	.1294-01	.1555-01	.1555-01	.9000	.5626-03	.6761-03	.4403	3.405	531 1
76	1545.0	434 00	338.00	.2630-02	.3159-02	.3159-02	.9000	.1144-03	.1374-03	.8976-01	.7464	528 8
76	1545.0	443 00	339 00	.8275-02	.9943-02	.9943-02	.9000	.3599-03	.4324-03	.2819	1 621	530.4



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2517

OH84B 60-0 OMS POD

(R4U06)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 G	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
119	3.691	8.000	29.96	.4900-02	862.0	1360.	98.53	.8830-01	3.956	3893.	.2419-02	.7928-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
119	4943-01	2105-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TH DEG. R
119	1325.0	428.60	298.00	.1951-02	.2352-02	.2352-02	.9000	.9693-04	.1163-03	.7926-01	.5893	541.9
119	1325.0	489.20	299.00	.2279-01	.2742-01	.2742-01	.9000	.1127-02	.1355-02	.9085	6.105	553.3
119	1325.0	506.70	301.00	.4219-01	.5075-01	.5075-01	.9000	.2085-02	.2508-02	1.681	13.31	553.4
119	1325.0	511.30	300.00	.3975-01	.4785-01	.4785-01	.9000	.1965-02	.2365-02	1.578	11.65	556.5
119	1350.0	440.40	302.00	.3606-02	.4330-02	.4330-02	.9000	.1782-03	.2140-03	.1449	1.343	546.6
119	1350.0	458.60	303.00	.1274-01	.1531-01	.1531-01	.9000	.6296-03	.7567-03	.5093	3.770	550.6
119	1350.0	498.50	304.00	.3869-01	.4655-01	.4655-01	.9000	.1913-02	.2301-02	1.540	10.67	554.4
119	1350.0	515.50	306.00	.2763-01	.3320-01	.3320-01	.9000	.1365-02	.1641-02	1.106	7.925	549.8
119	1350.0	524.40	305.00	.1705-01	.2047-01	.2047-01	.9000	.8426-03	.1012-02	.6855	5.261	546.1
119	1375.0	421.60	308.00	.1632-02	.1959-02	.1959-02	.9000	.8068-04	.9682-04	.6580-01	.9161	544.1
119	1375.0	440.00	309.00	.4628-02	.5557-02	.5557-02	.9000	.2287-03	.2747-03	.1860	1.800	546.4
119	1375.0	460.00	310.00	.2921-01	.3513-01	.3513-01	.9000	.1444-02	.1736-02	1.166	7.390	552.3
119	1375.0	503.40	311.00	.1895-01	.2276-01	.2276-01	.9000	.9366-03	.1125-02	.7613	6.049	546.9
119	1375.0	531.00	312.00	.1187-01	.1424-01	.1424-01	.9000	.5867-03	.7037-03	.4795	3.448	542.4
119	1400.0	523.40	313.00	.1268-01	.1521-01	.1521-01	.9000	.6267-03	.7520-03	.5115	4.221	543.5
119	1425.0	415.10	315.00	.3964-02	.4755-02	.4755-02	.9000	.1959-03	.2350-03	.1602	1.153	541.9
119	1425.0	437.70	316.00	.9533-02	.1144-01	.1144-01	.9000	.4712-03	.5654-03	.3843	2.854	544.0
119	1425.0	466.30	317.00	.3886-01	.4684-01	.4684-01	.9000	.1926-02	.2315-02	1.557	9.099	551.0
119	1425.0	508.60	318.00	.6301-02	.7556-02	.7556-02	.9000	.3114-03	.3735-03	.2549	2.107	541.0
119	1425.0	536.50	319.00	.8545-02	.1025-01	.1025-01	.9000	.4224-03	.5065-03	.3459	2.573	540.7
119	1450.0	418.20	320.00	.3329-02	.3992-02	.3992-02	.9000	.1645-03	.1973-03	.1346	1.305	541.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2518

## OH84B 60-0 OMS POD

(R4US06)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
119	1450.0	436.00	321.00	7600-02	.9118-02	.9118-02	.9000	.3756-03	.4507-03	.3067	2.357	543.1
119	1450.0	468.20	322.00	3304-01	.3972-01	.3972-01	.9000	.1633-02	.1963-02	1.320	8.876	551.5
119	1450.0	511.10	323.00	5016-02	.6014-02	.6014-02	.9000	.2479-03	.2972-03	.2031	1.813	540.5
119	1450.0	526.60	325.00	.6843-02	.8205-02	.8205-02	.9000	.3382-03	.4055-03	.2771	2.290	540.5
119	1500.0	437.00	327.00	.5267-02	.6316-02	.6316-02	.9000	.2603-03	.3122-03	.2132	1.640	540.8
119	1500.0	470.40	328.00	1692-01	.2030-01	.2030-01	.9000	.8363-03	.1003-02	.6829	4.228	543.1
119	1500.0	514.00	329.00	4077-02	.4886-02	.4886-02	.9000	.2015-03	.2415-03	.1654	1.192	538.7
119	1500.0	532.30	331.00	.4348-02	.5210-02	.5210-02	.9000	.2149-03	.2575-03	.1766	1.161	537.8
119	1500.0	539.40	330.00	.4554-02	.5459-02	.5459-02	.9000	.2251-03	.2698-03	.1847	1.331	539.0
119	1525.0	424.00	332.00	1023-02	.1225-02	.1225-02	.9000	.5055-04	.6057-04	.4155-01	.3202	537.7
119	1525.0	431.00	333.00	3620-02	.4340-02	.4340-02	.9000	.1789-03	.2145-03	.1468	.9641	539.4
119	1525.0	440.00	334.00	9361-02	.1123-01	.1123-01	.9000	.4627-03	.5548-03	.3788	2.415	541.0
119	1525.0	493.00	335.00	.1302-01	.1563-01	.1563-01	.9000	.6436-03	.7724-03	.5247	4.030	544.4
119	1545.0	434.00	338.00	2580-02	.3092-02	.3092-02	.9000	.1275-03	.1528-03	.1047	.8664	538.6
119	1545.0	443.00	339.00	.8136-02	.9755-02	.9755-02	.9000	.4021-03	.4822-03	.3294	1.885	540.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2519

OH84B 60-0 OMS POD

(R4U508)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = 1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
50	2.048	7.980	29 94	1.035	434.8	1282.	93.31	.4526-01	2.018	3779.	.1309-02	.7508-07

RUN NUMBER	HREF BTU/ R FT2SEC	SIN NO REF (R) =.0175
50	3494-01	.2843-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
50	1325.0	428.60	298.00	.4520-03	.5450-03	.5450-03	.9000	.1579-04	.1904-04	.1186-01	.8869-01	530.6
50	1325.0	489.20	299.00	.4896-02	.5904-02	.5904-02	.9000	.1710-03	.2063-03	.1284	.8721	531.3
50	1325.0	506.70	301.00	.1134-01	.1367-01	.1367-01	.9000	.3961-03	.4777-03	.2971	2.379	531.7
50	1325.0	511.30	300.00	.1803-01	.2177-01	.2177-01	.9000	.6301-03	.7607-03	.4702	3.507	535.4
50	1350 0	440.40	302.00	.2161-02	.2606-02	.2606-02	.9000	.7551-04	.9104-04	.5674-01	.5304	530.2
50	1350 0	458.60	303.00	.5569-02	.6715-02	.6715-02	.9000	.1946-03	.2346-03	.1461	1.092	530.9
50	1350 0	498.50	304.00	.6457-02	.7781-02	.7781-02	.9000	.2256-03	.2719-03	.1699	1.192	528.5
50	1350 0	515.50	306.00	.1382-01	.1666-01	.1666-01	.9000	.4827-03	.5822-03	.3620	2.617	531.8
50	1350 0	524.40	305.00	.1030-01	.1242-01	.1242-01	.9000	.3600-03	.4340-03	.2706	2.093	530.1
50	1375.0	421.60	308.00	.1603-02	.1935-02	.1935-02	.9000	.5602-04	.6759-04	.4193-01	.5870	533.2
50	1375 0	440.00	309.00	.6911-02	.8335-02	.8335-02	.9000	.2415-03	.2912-03	.1811	1.765	531.6
50	1375 0	460.00	310.00	.2460-01	.2967-01	.2967-01	.9000	.8594-03	.1037-02	.6435	4.119	532.8
50	1375 0	503.40	311.00	.4431-02	.5337-02	.5337-02	.9000	.1548-03	.1865-03	.1169	.9381	526.7
50	1375 0	531.00	312.00	.6801-02	.8191-02	.8191-02	.9000	.2376-03	.2862-03	.1794	1.300	526.8
50	1400 0	523.40	313.00	.1342-01	.1619-01	.1619-01	.9000	.4690-03	.5656-03	.3521	2.924	531.0
50	1425.0	415.10	315.00	.3024-02	.3647-02	.3647-02	.9000	.1057-03	.1274-03	.7920-01	.5727	532.0
50	1425 0	437.70	316.00	.8058-02	.9713-02	.9713-02	.9000	.2815-03	.3394-03	.2117	1.583	529.9
50	1425.0	466.30	317.00	.1921-01	.2316-01	.2316-01	.9000	.6711-03	.8090-03	.5045	2.979	529.9
50	1425 0	508.60	318.00	.4417-02	.5321-02	.5321-02	.9000	.1543-03	.1859-03	.1164	.9683	527.5
50	1425.0	536.50	319.00	.5372-02	.6471-02	.6471-02	.9000	.1877-03	.2261-03	.1417	1.062	526.8
50	1450 0	418.20	320.00	.2169-02	.2616-02	.2616-02	.9000	.7579-04	.9139-04	.5693-01	.5552	530.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US08)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
50	1450.0	436.00	321.00	.5096-02	.6142-02	.6142-02	.9000	.1781-03	.2146-03	.1341	1.038	528.8
50	1450.0	468.20	322.00	.1453-01	.1751-01	.1751-01	.9000	.5077-03	.6118-03	.3822	2.600	528.9
50	1450.0	511.10	323.00	.4264-02	.5135-02	.5135-02	.9000	.1490-03	.1794-03	.1125	1.012	526.3
50	1450.0	526.60	325.00	.6719-02	.8096-02	.8096-02	.9000	.2348-03	.2829-03	.1769	1.472	527.9
50	1500.0	437.00	327.00	.3027-02	.3645-02	.3645-02	.9000	.1058-03	.1274-03	.7999-01	6203	525.4
50	1500.0	470.40	329.00	.6739-02	.8114-02	.8114-02	.9000	.2355-03	.2835-03	.1781	1.113	525.3
50	1500.0	514.00	329.00	.3854-02	.4640-02	.4640-02	.9000	.1347-03	.1621-03	.1019	.7398	524.7
50	1500.0	532.30	331.00	.3581-02	.4309-02	.4309-02	.9000	.1251-03	.1506-03	.9487-01	.6282	523.4
50	1500.0	539.40	330.00	.2744-02	.3303-02	.3303-02	.9000	.9588-04	.1154-03	.7264-01	.5274	524.0
50	1525.0	424.00	332.00	.4461-03	.5369-03	.5369-03	.9000	.1559-04	.1876-04	.1181-01	.9170-01	523.7
50	1525.0	431.00	333.00	.1812-02	.2181-02	.2181-02	.9000	.6332-04	.7620-04	.4798-01	.3177	523.8
50	1525.0	440.00	334.00	.4493-02	.5408-02	.5408-02	.9000	.1570-03	.1889-03	.1189	.7645	524.2
50	1525.0	493.00	335.00	.4918-02	.5917-02	.5917-02	.9000	.1718-03	.2068-03	.1303	1.012	523.1
50	1545.0	434.00	338.00	.1172-02	.1410-02	.1410-02	.9000	.4094-04	.4927-04	.3103-01	.2587	523.7
50	1545.0	443.00	339.00	.3951-02	.4756-02	.4756-02	.9000	.1380-03	.1662-03	.1045	.6030	524.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2521

OH84B 60-0 OMS POD

(R4U509)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = 2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
53	1.993	7.980	29.95	2.037	434.6	1305.	94 98	.4524-01	2.017	3813.	.1286-02	.7643-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
53	.3504-01	.2875-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
53	1325.0	428.60	298.00	.4363-03	.5245-03	.5245-03	.9000	.1529-04	.1838-04	.1185-01	.8864-01	529.5
53	1325.0	489.20	299.00	.1315-02	.1580-02	.1580-02	.9000	.4606-04	.5537-04	.3575-01	.2432	528.6
53	1325.0	506.70	301 00	.9321-02	.1121-01	.1121-01	.9000	.3266-03	.3928-03	.2527	2.024	530.9
53	1325.0	511.30	300 00	.9181-02	.1105-01	.1105-01	.9000	.3217-03	.3871-03	.2484	1.856	532.5
53	1350.0	440.40	302.00	.2329-02	.2800-02	.2800-02	.9000	.8161-04	.9810-04	.6332-01	.5923	528.8
53	1350.0	458.60	303.00	.6690-02	.8043-02	.8043-02	.9000	.2344-03	.2818-03	.1818	1.360	529.1
53	1350.0	498.50	304.00	.4905-02	.5895-02	.5895-02	.9000	.1719-03	.2065-03	.1336	.9378	527.5
53	1350.0	515.50	306.00	.1467-01	.1764-01	.1764-01	.9000	.5139-03	.6181-03	.3976	2.876	531.0
53	1350 0	524 40	305 00	.7296-02	.8770-02	.8770-02	.9000	.2556-03	.3073-03	.1984	1.536	528.5
53	1375 0	421 60	308.00	.1011-02	.1216-02	.1216-02	.9000	.3542-04	.4262-04	.2738-01	.3836	531.8
53	1375 0	440 00	309 00	.3197-02	.3843-02	.3843-02	.9000	.1120-03	.1347-03	.8687-01	.8478	529.1
53	1375 0	460 00	310 00	.8422-02	.1012-01	.1012-01	.9000	.2951-03	.3547-03	.2292	1.471	527.9
53	1375 0	503.40	311.00	.5555-02	.6672-02	.6672-02	.9000	.1946-03	.2338-03	.1516	1.218	525.6
53	1375 0	531 00	312.00	.5554-02	.6671-02	.6671-02	.9000	.1946-03	.2337-03	.1516	1.100	525 6
53	1400 0	523.40	313 00	.1041-01	.1252-01	.1252-01	.9000	.3649-03	.4387-03	.2831	2.354	528.9
53	1425 0	415 10	315 00	.1982-02	.2384-02	.2384-02	.9000	.6946-04	.8354-04	.5376-01	.3890	530.7
53	1425 0	437 70	316 00	.4149-02	.4986-02	.4986-02	.9000	.1454-03	.1747-03	.1129	.8457	527.7
53	1425 0	466 30	317 00	.6763-02	.8125-02	.8125-02	.9000	.2370-03	.2847-03	.1844	1.091	526.4
53	1425 0	508 60	318.00	.4114-02	.4943-02	.4943-02	.9000	.1442-03	.1732-03	.1122	.9343	526.3
53	1425 0	536 50	319 00	.4345-02	.5220-02	.5220-02	.9000	.1523-03	.1829-03	.1186	.8887	525.9
53	1450 0	418 20	320 00	.1057-02	.1271-02	.1271-02	.9000	.3704-04	.4453-04	.2873-01	.2804	529.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US09)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
53	1450.0	436.00	321.00	.2646-02	.3179-02	.3179-02	.9000	.9270-04	.1114-03	.7207-01	.5584	527.2
53	1450 0	468.20	322.00	.5870-02	.7050-02	.7050-02	.9000	.2057-03	.2470-03	.1602	1.092	525.7
53	1450 0	511.10	323 00	.3236-02	.3886-02	.3886-02	.9000	.1134-03	.1362-03	.8837-01	.7951	525.2
53	1450 0	526.60	325 00	.5101-02	.6128-02	.6128-02	.9000	.1787-03	.2147-03	.1391	1.158	526.5
53	1500.0	437.00	327 00	.1676-02	.2012-02	.2012-02	.9000	.5871-04	.7049-04	.4584-01	.3558	523 8
53	1500.0	470.40	328 00	.4914-02	.5900-02	.5900-02	.9000	.1722-03	.2067-03	.1344	.8398	524 3
53	1500.0	514 00	329 00	.1891-02	.2270-02	.2270-02	.9000	.6627-04	.7955-04	.5179-01	.3761	523.2
53	1500.0	532.30	331.00	.2500-02	.3001-02	.3001-02	.9000	.8761-04	.1051-03	.6858-01	.4544	522.0
53	1500.0	539 40	330 00	.2648-02	.3178-02	.3178-02	.9000	.9277-04	.1114-03	.7251-01	.5266	523.1
53	1525 0	424.00	332.00	.4248-03	.5099-03	.5099-03	.9000	.1489-04	.1787-04	.1164-01	.9040-01	522.7
53	1525.0	431 00	333.00	.1126-02	.1352-02	.1352-02	.9000	.3946-04	.4736-04	.3086-01	.2045	522.5
53	1525.0	440.00	334 00	.2908-02	.3490-02	.3490-02	.9000	.1019-03	.1223-03	.7970-01	.5129	522 5
53	1525.0	493.00	335.00	.4016-02	.4820-02	.4820-02	.9000	.1407-03	.1689-03	.1100	.8547	522 6
53	1545.0	434.00	338.00	.7048-03	.8459-03	.8459-03	.9000	.2470-04	.2964-04	.1932-01	.1611	522.5
53	1545.0	443.00	339 00	.2489-02	.2987-02	.2987-02	.9000	.8720-04	.1047-03	.6817-01	.3936	522.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2523

OH84B 60-0 OMS POD

(R4US10)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = 2.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
54	1.990	7.980	29.95	2.038	434.8	1307.	95.13	.4526-01	2.018	3815.	.1284-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
54	.3506-01	.2877-01

## \*\*\*TEST DATA\*\*\*

RJN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
54	1325.0	428.60	298.00	.3906-03	.4693-03	.4693-03	.9000	.1369-04	.1645-04	.1066-01	.7984-01	527.9
54	1325.0	489.20	299.00	.1430-02	.1717-02	.1717-02	.9000	.5011-04	.6021-04	.3906-01	.2660	527.2
54	1325.0	506.70	301.00	.9062-02	.1089-01	.1089-01	.9000	.3177-03	.3819-03	.2468	1.977	529.9
54	1325.0	511.30	300.00	.9066-02	.1090-01	.1090-01	.9000	.3178-03	.3822-03	.2465	1.842	531.2
54	1350.0	440.40	302.00	.2242-02	.2694-02	.2694-02	.9000	.7861-04	.9443-04	.6128-01	.5738	527.1
54	1350.0	458.60	303.00	.6648-02	.7987-02	.7987-02	.9000	.2330-03	.2800-03	.1816	1.360	527.5
54	1350.0	498.50	304.00	.5035-02	.6047-02	.6047-02	.9000	.1765-03	.2120-03	.1378	.9684	525.9
54	1350.0	515.50	306.00	.1453-01	.1747-01	.1747-01	.9000	.5095-03	.6125-03	.3960	2.867	529.4
54	1350.0	524.40	305.00	.7060-02	.8481-02	.8481-02	.9000	.2475-03	.2973-03	.1930	1.495	527.0
54	1375.0	421.60	308.00	.9191-03	.1105-02	.1105-02	.9000	.3222-04	.3874-04	.2502-01	.3509	530.1
54	1375.0	440.00	309.00	.3201-02	.3846-02	.3846-02	.9000	.1122-03	.1348-03	.8745-01	.8543	527.4
54	1375.0	460.00	310.00	.8487-02	.1019-01	.1019-01	.9000	.2975-03	.3573-03	.2322	1.491	526.2
54	1375.0	503.40	311.00	.5454-02	.6547-02	.6547-02	.9000	.1912-03	.2295-03	.1496	1.202	524.2
54	1375.0	531.00	312.00	.5386-02	.6466-02	.6466-02	.9000	.1888-03	.2267-03	.1477	1.072	524.3
54	1400.0	523.40	313.00	.1041-01	.1251-01	.1251-01	.9000	.3649-03	.4384-03	.2843	2.366	527.5
54	1425.0	415.10	315.00	.1991-02	.2393-02	.2393-02	.9000	.6980-04	.8390-04	.5427-01	.3930	529.2
54	1425.0	437.70	316.00	.4653-02	.5588-02	.5588-02	.9000	.1631-03	.1959-03	.1274	.9546	525.9
54	1425.0	466.30	317.00	.6783-02	.8145-02	.8145-02	.9000	.2378-03	.2855-03	.1859	1.101	524.9
54	1425.0	508.60	318.00	.4192-02	.5033-02	.5033-02	.9000	.1470-03	.1764-03	.1149	.9571	524.9
54	1425.0	536.50	319.00	.4340-02	.5211-02	.5211-02	.9000	.1522-03	.1827-03	.1190	.8925	524.6
54	1450.0	418.20	320.00	.1030-02	.1237-02	.1237-02	.9000	.3610-04	.4337-04	.2812-01	.2747	527.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 OMS POD

(R4US10)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
54	1450 0	436.00	321.00	.2674-02	.3212-02	.3212-02	.9000	.9375-04	.1126-03	.7320-01	.5676	525.8
54	1450 0	468.20	322.00	.5486-02	.6585-02	.6585-02	.9000	.1923-03	.2309-03	.1505	1.026	524.3
54	1450 0	511 10	323 00	.3204-02	.3846-02	.3846-02	.9000	.1123-03	.1348-03	.8792-01	.7915	523.9
54	1450.0	526.60	325 00	.5264-02	.6320-02	.6320-02	.9000	.1845-03	.2216-03	.1442	1.201	525.1
54	1500.0	437.00	327 00	.1776-02	.2132-02	.2132-02	.9000	.6227-04	.7473-04	.4882-01	.3791	522.7
54	1500 0	470 40	328 00	.4862-02	.5835-02	.5835-02	.9000	.1704-03	.2045-03	.1335	.8351	523.2
54	1500 0	514 00	329 00	.2016-02	.2418-02	.2418-02	.9000	.7066-04	.8478-04	.5545-01	.4030	522.0
54	1500 0	532 30	331 00	.2490-02	.2987-02	.2987-02	.9000	.8731-04	.1047-03	.6863-01	.4551	520 6
54	1500.0	539.40	330.00	.2779-02	.3334-02	.3334-02	.9000	.9741-04	.1169-03	.7645-01	.5557	521 8
54	1525 0	424.00	332 00	.3384-03	.4060-03	.4060-03	.9000	.1186-04	.1423-04	.9315-02	.7238-01	521.5
54	1525.0	431 00	333.00	.1042-02	.1250-02	.1250-02	.9000	.3654-04	.4383-04	.2869-01	.1902	521.4
54	1525 0	440.00	334 00	.2880-02	.3455-02	.3455-02	.9000	.1010-03	.1211-03	.7927-01	.5104	521.5
54	1525.0	493.00	335 00	.4001-02	.4800-02	.4800-02	.9000	.1403-03	.1683-03	.1101	.8555	521.7
54	1545 0	434 00	338.00	.6646-03	.7973-03	.7973-03	.9000	.2330-04	.2795-04	.1829-01	.1527	521.5
54	1545.0	443 00	339 00	.2445-02	.2933-02	.2933-02	.9000	.8570-04	.1028-03	.6726-01	.3885	521.9



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2525

OH84B 60-0 OMS POD

(R4US11)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
164	2.005	7.980	34 98	-4.049	435 7	1302.	94.76	.4536-01	2.022	3808.	.1292-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
164	.3507-01	2867-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(10) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
164	1325.0	428.60	298.00	.7247-02	.8744-02	.8744-02	.9000	.2542-03	.3067-03	.1932	1.436	541.6
164	1325.0	489.20	299.00	.8971-01	.1089	.1089	.9000	.3146-02	.3820-02	2.323	15.53	563.2
164	1325.0	506.70	301.00	.1805-01	.2175-01	.2175-01	.9000	.6330-03	.7630-03	.4837	3.861	537.5
164	1325.0	511.30	300.00	.2982-01	.3601-01	.3601-01	.9000	.1046-02	.1263-02	.7919	5.880	544.4
164	1350.0	440.40	302 00	.9964-02	.1203-01	.1203-01	.9000	.3494-03	.4219-03	.2648	2.458	543 8
164	1350 0	458.60	303.00	.1107	.1344	.1344	.9000	.3882-02	.4714-02	2.864	21.06	563.8
164	1350.0	498 50	304 00	.5191-01	.6271-01	.6271-01	.9000	.1821-02	.2199-02	1.376	9.575	545.6
164	1350.0	515.50	306 00	.1605-01	.1933-01	.1933-01	.9000	.5628-03	.6780-03	.4310	3.110	535.9
164	1350.0	524.40	305.00	.1911-01	.2302-01	.2302-01	.9000	.6701-03	.8074-03	5130	3.957	536.1
164	1375 0	421 60	308 00	.2454-02	.2963-02	.2963-02	.9000	.8607-04	.1039-03	6527-01	.9092	543 3
164	1375.0	440.00	309.00	.1108-01	.1338-01	.1338-01	.9000	.3887-03	.4691-03	.2950	2 859	542.7
164	1375 0	460.00	310.00	.7242-01	.8757-01	.8757-01	.9000	.2540-02	.3071-02	1.912	12 14	549 1
164	1375 0	503 40	311 00	.2073-01	.2498-01	.2498-01	.9000	.7270-03	.8760-03	5563	4 443	536.5
164	1375 0	531 00	312 00	.9571-02	.1152-01	.1152-01	.9000	.3356-03	.4040-03	.2583	1.867	532.2
164	1400.0	523.40	313.00	.1058-01	.1274-01	.1274-01	.9000	.3712-03	.4468-03	2853	2.368	532 9
164	1425.0	415 10	315 00	.6880-02	.8297-02	.8297-02	.9000	.2413-03	.2910-03	1838	1 324	539 9
164	1425 0	437.70	316 00	.1090-01	.1314-01	.1314-01	.9000	.3823-03	.4608-03	.2921	2.176	537 5
164	1425.0	466 30	317 00	.4611-01	.5562-01	.5562-01	.9000	.1617-02	.1951-02	1 231	7 227	540.7
164	1425 0	508 60	318 00	.9265-02	.1115-01	.1115-01	.9000	.3249-03	.3911-03	.2500	2 076	532.1
164	1425.0	536 50	319 00	.5984-02	.7198-02	.7198-02	.9000	.2099-03	.2524-03	.1619	1.211	530 1
164	1450 0	418 20	320 00	.5692-02	.6861-02	.6861-02	.9000	.1996-03	.2406-03	.1524	1.481	537.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US11)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
164	1450.0	436.00	321.00	.1123-01	.1353-01	.1353-01	.9000	.3939-03	.4746-03	.3014	2.325	536.4
164	1450.0	468.20	322.00	.3594-01	.4334-01	.4334-01	.9000	.1260-02	.1520-02	.9600	6.494	540.0
164	1450.0	511.10	323.00	.7549-02	.9084-02	.9084-02	.9000	.2648-03	.3186-03	.2039	1.829	531.4
164	1450.0	526.60	325.00	.7100-02	.8546-02	.8546-02	.9000	.2490-03	.2997-03	.1916	1.590	532.4
164	1500.0	437.00	327.00	.8743-02	.1052-01	.1052-01	.9000	.3066-03	.3690-03	.2361	1.825	531.7
164	1500.0	470.40	328.00	.2090-01	.2515-01	.2515-01	.9000	.7329-03	.8821-03	.5637	3.509	532.5
164	1500.0	514.00	329.00	.6278-02	.7549-02	.7549-02	.9000	.2202-03	.2647-03	.1702	1.233	528.5
164	1500.0	532.30	331.00	.4363-02	.5244-02	.5244-02	.9000	.1530-03	.1839-03	.1186	.7839	526.7
164	1500.0	539.40	330.00	.3350-02	.4027-02	.4027-02	.9000	.1175-03	.1412-03	.9099-01	6595	527.2
164	1525.0	424.00	332.00	.2030-02	.2440-02	.2440-02	.9000	.7118-04	.8557-04	.5511-01	.4269	527.5
164	1525.0	431.00	333.00	.5974-02	.7185-02	.7185-02	.9000	.2095-03	.2520-03	.1619	1.069	529.0
164	1525.0	440.00	334.00	.1499-01	.1803-01	.1803-01	.9000	.5256-03	.6324-03	.4049	2.594	531.3
164	1525.0	493.00	335.00	.1496-01	.1801-01	.1801-01	.9000	.5247-03	.6316-03	.4038	3.121	532.1
164	1545.0	434.00	338.00	.4483-02	.5391-02	.5391-02	.9000	.1572-03	.1891-03	.1215	1.010	528.8
164	1545.0	443.00	339.00	.1311-01	.1578-01	.1578-01	.9000	.4599-03	.5533-03	.3548	2.041	530.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2527

OH84B 60-0 OMS POD

(R4US11)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
107	3.001	7.990	34.98	-4.050	670.2	1323.	96.07	.6921-01	3.093	3839.	.1944-02	.7731-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
107	.4350-01	2341-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
107	1325.0	428.60	298.00	.1919-01	.2312-01	.2312-01	.9000	.8347-03	.1006-02	.6496	4.823	544.5
107	1325.0	489.20	299.00	.1100	.1335	.1335	.9000	.4785-02	.5805-02	3.600	23.99	570.2
107	1325.0	506.70	301.00	.2021-01	.2430-01	.2430-01	.9000	.8791-03	.1057-02	.6915	5.525	536.0
107	1325.0	511.30	300.00	.4002-01	.4822-01	.4822-01	.9000	.1741-02	.2097-02	1.354	10.06	544.6
107	1350.0	440.40	302.00	.3455-01	.4166-01	.4166-01	.9000	.1503-02	.1812-02	1.163	10.77	548.4
107	1350.0	458.60	303.00	.1438	.1749	.1749	.9000	.6257-02	.7609-02	4.656	33.99	578.5
107	1350.0	498.50	304.00	.4478-01	.5394-01	.5394-01	.9000	.1948-02	.2346-02	1.518	10.57	543.3
107	1350.0	515.50	306.00	.1772-01	.2130-01	.2130-01	.9000	.7708-03	.9263-03	.6073	4.385	534.8
107	1350.0	524.40	305.00	.2198-01	.2642-01	.2642-01	.9000	.9560-03	.1149-02	.7524	5.804	535.7
107	1375.0	421.60	308.00	.4877-02	.5874-02	.5874-02	.9000	.2121-03	.2555-03	.1653	2.303	543.3
107	1375.0	440.00	309.00	.3632-01	.4381-01	.4381-01	.9000	.1580-02	.1906-02	1.223	11.82	548.7
107	1375.0	460.00	310.00	.1240	.1503	.1503	.9000	.5392-02	.6536-02	4.073	25.62	567.3
107	1375.0	503.40	311.00	.2196-01	.2640-01	.2640-01	.9000	.9553-03	.1148-02	.7518	6.007	535.7
107	1375.0	531.00	312.00	.9835-02	.1180-01	.1180-01	.9000	.4278-03	.5134-03	.3391	2.455	529.9
107	1400.0	523.40	313.00	.1108-01	.1330-01	.1330-01	.9000	.4818-03	.5786-03	.3810	3.163	531.9
107	1425.0	415.10	315.00	.1482-01	.1784-01	.1784-01	.9000	.6444-03	.7758-03	.5032	3.620	541.9
107	1425.0	437.70	316.00	.1804-01	.2170-01	.2170-01	.9000	.7847-03	.9437-03	.6164	4.593	537.2
107	1425.0	466.30	317.00	.5999-01	.7225-01	.7225-01	.9000	.2609-02	.3142-02	2.035	11.94	542.9
107	1425.0	508.60	318.00	.1081-01	.1298-01	.1298-01	.9000	.4702-03	.5646-03	.3719	3.088	531.8
107	1425.0	536.50	319.00	.5980-02	.7174-02	.7174-02	.9000	.2601-03	.3120-03	.2066	1.546	528.4
107	1450.0	418.20	320.00	.1085-01	.1306-01	.1306-01	.9000	.4721-03	.5680-03	.3698	3.591	539.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2528

OH84B 60-0 OMS POD

(R4US11)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
107	1450.0	436.00	321.00	.1386-01	.1666-01	.1666-01	.9000	.6026-03	.7245-03	.4740	3.656	536.2
107	1450.0	468.20	322.00	.4874-01	.5870-01	.5870-01	.9000	.2120-02	.2553-02	1.654	11.17	542.7
107	1450.0	511.10	323.00	.8554-02	.1027-01	.1027-01	.9000	.3721-03	.4466-03	.2949	2.647	529.9
107	1450.0	526.60	325.00	.6873-02	.8249-02	.8249-02	.9000	.2989-03	.3588-03	.2370	1.970	529.7
107	1500.0	437.00	327.00	.1203-01	.1445-01	.1445-01	.9000	.5233-03	.6284-03	.4141	3.201	531.5
107	1500.0	470.40	328.00	.3233-01	.3886-01	.3886-01	.9000	.1406-02	.1690-02	1.108	6.888	534.9
107	1500.0	514.00	329.00	.6519-02	.7819-02	.7819-02	.9000	.2835-03	.3401-03	.2256	1.635	527.1
107	1500.0	532.30	331.00	.4847-02	.5810-02	.5810-02	.9000	.2108-03	.2527-03	1.682	1.113	524.6
107	1500.0	539.40	330.00	.3380-02	.4052-02	.4052-02	.9000	.1470-03	.1762-03	1.172	.8499	525.6
107	1525.0	424.00	332.00	.3335-02	.4000-02	.4000-02	.9000	.1451-03	.1740-03	.1155	.8949	526.7
107	1525.0	431.00	333.00	.9162-02	.1099-01	.1099-01	.9000	.3985-03	.4781-03	.3166	2.091	528.2
107	1525.0	440.00	334.00	.2234-01	.2683-01	.2683-01	.9000	.9718-03	.1167-02	.7689	4.925	531.5
107	1525.0	493.00	335.00	.1567-01	.1881-01	.1881-01	.9000	.6816-03	.8182-03	.5400	4.177	530.4
107	1545.0	434.00	338.00	.6830-02	.8193-02	.8193-02	.9000	.2971-03	.3564-03	.2362	1.966	527.5
107	1545.0	443.00	339.00	.1940-01	.2328-01	.2328-01	.9000	.8436-03	.1013-02	.6683	3.844	530.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2529

OH84B 60-0 OMS POD

(R4US11)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
141	3.698	8.000	35 01	-3.996	856.0	1352.	97.95	.8768-01	3.928	3881.	.2416-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
141	.4920-01	.2105-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
141	1325.0	428.60	298.00	.1878-01	.2260-01	.2260-01	.9000	.9241-03	.1112-02	.7394	5.470	551.6
141	1325.0	489.20	299.00	.1087	.1318	.1318	.9000	.5348-02	.6484-02	4.127	27.37	579.9
141	1325.0	506.70	301.00	.2131-01	.2559-01	.2559-01	.9000	.1049-02	.1259-02	.8482	6.753	542.7
141	1325.0	511.30	300.00	.3481-01	.4186-01	.4186-01	.9000	.1713-02	.2060-02	1.374	10.18	549.5
141	1350.0	440.40	302.00	.4175-01	.5033-01	.5033-01	.9000	.2054-02	.2476-02	1.630	15.02	558.4
141	1350.0	458.60	303.00	.1474	.1792	.1792	.9000	.7252-02	.8816-02	5.526	40.11	589.7
141	1350.0	498.50	304.00	.4230-01	.5087-01	.5087-01	.9000	.2081-02	.2503-02	1.670	11.59	549.5
141	1350.0	515.50	306.00	.1785-01	.2142-01	.2142-01	.9000	.8781-03	.1054-02	.7120	5.126	540.8
141	1350.0	524.40	305.00	.2120-01	.2544-01	.2544-01	.9000	.1043-02	.1252-02	.8446	6.495	541.8
141	1375.0	421.60	306.00	.5806-02	.6985-02	.6985-02	.9000	.2857-03	.3437-03	.2287	3.173	551.0
141	1375.0	440.00	309.00	.4159-01	.5014-01	.5014-01	.9000	.2046-02	.2467-02	1.622	15.59	559.0
141	1375.0	460.00	310.00	.1178	.1426	.1426	.9000	.5798-02	.7017-02	4.510	28.29	573.7
141	1375.0	503.40	311.00	.2133-01	.2561-01	.2561-01	.9000	.1050-02	.1260-02	.8496	6.766	542.3
141	1375.0	531.00	312.00	.9753-02	.1169-01	.1169-01	.9000	.4799-03	.5752-03	.3914	2.824	536.0
141	1400.0	523.40	313.00	.1002-01	.1201-01	.1201-01	.9000	.4928-03	.5908-03	.4014	3.323	537.2
141	1425.0	415.10	315.00	.1717-01	.2065-01	.2065-01	.9000	.8449-03	.1016-02	.6781	4.861	549.1
141	1425.0	437.70	316.00	.1905-01	.2289-01	.2289-01	.9000	.9375-03	.1126-02	.7559	5.609	545.4
141	1425.0	466.30	317.00	.5505-01	.6619-01	.6619-01	.9000	.2709-02	.3257-02	2.175	12.73	548.5
141	1425.0	507.60	318.00	.9908-02	.1188-01	.1188-01	.9000	.4875-03	.5845-03	.3970	3.287	537.4
141	1425.0	536.50	319.00	.5959-02	.7139-02	.7139-02	.9000	.2932-03	.3513-03	.2397	1.789	534.1
141	1450.0	418.20	320.00	.1163-01	.1397-01	.1397-01	.9000	.5721-03	.6874-03	.4608	4.459	546.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2530

OH84B 60-0 OMS POD

(R4US11)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
141	1450 0	436.00	321.00	.1520-01	.1825-01	.1825-01	.9000	.7480-03	.8980-03	.6051	4.652	542.6
141	1450 0	468.20	322.00	.4721-01	.5676-01	.5676-01	.9000	.2323-02	.2793-02	1.865	12.56	548.6
141	1450.0	511 10	323.00	.9231-02	.1107-01	.1107-01	.9000	.4542-03	.5445-03	.3702	3.312	536.6
141	1450.0	526 60	325 00	.6155-02	.7376-02	.7376-02	.9000	.3029-03	.3629-03	.2474	2.051	534 9
141	1500.0	437 00	327.00	.1342-01	.1609-01	.1609-01	.9000	.6603-03	.7918-03	.5376	4.144	537.5
141	1500.0	470 40	328 00	.3335-01	.4002-01	.4002-01	.9000	.1641-02	.1969-02	1.331	8.254	540.4
141	1500.0	514 00	329.00	.7083-02	.8484-02	.8484-02	.9000	.3485-03	.4174-03	.2854	2.063	532.7
141	1500.0	532 30	331.00	.3640-02	.4358-02	.4358-02	.9000	.1791-03	.2144-03	.1470	.9699	530.8
141	1500.0	539 40	330.00	.3378-02	.4044-02	.4044-02	.9000	.1662-03	.1990-03	.1364	.9865	531.2
141	1525 0	424.00	332.00	.3293-02	.3942-02	.3942-02	.9000	.1620-03	.1940-03	.1329	1.027	531.4
141	1525 0	431.00	333.00	.9448-02	.1132-01	.1132-01	.9000	.4649-03	.5569-03	.3802	2.504	533.7
141	1525.0	440.00	334.00	.2417-01	.2899-01	.2899-01	.9000	.1189-02	.1427-02	.9673	6.175	538.4
141	1525.0	493.00	335 00	.1336-01	.1601-01	.1601-01	.9000	.6574-03	.7879-03	.5365	4.139	535.8
141	1545 0	434 00	338.00	.6833-02	.8183-02	.8183-02	.9000	.3362-03	.4027-03	.2754	2.286	532.5
141	1545.0	443 00	339.00	.2076-01	.2489-01	.2489-01	.9000	.1022-02	.1225-02	.8329	4.777	536.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2531

OH84B 60-0 OMS POD

(R4US12)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -2.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
161	2.002	7.980	34.99	-2.012	436.0	1304.	94.91	.4539-01	2.023	3811.	.1291-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
161	.3509-01	.2869-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
161	1325.0	428.60	298.00	.1485-02	.1789-02	.1789-02	.9000	.5212-04	.6278-04	.4003-01	.2985	535.7
161	1325.0	489.20	299.00	.1345-01	.1621-01	.1621-01	.9000	.4719-03	.5689-03	.3610	2.443	538.8
161	1325.0	506.70	301.00	.4160-01	.5016-01	.5016-01	.9000	.1460-02	.1760-02	1.115	8.886	540.1
161	1325.0	511.30	300.00	.4213-01	.5084-01	.5084-01	.9000	.1479-02	.1784-02	1.125	8.364	542.5
161	1350.0	440.40	302.00	.2121-02	.2556-02	.2556-02	.9000	.7443-04	.8969-04	.5704-01	.5313	537.3
161	1350.0	458.60	303.00	.6108-02	.7358-02	.7358-02	.9000	.2144-03	.2582-03	.1646	1.227	536.0
161	1350.0	498.50	304.00	.1443-01	.1738-01	.1738-01	.9000	.5064-03	.6097-03	.3897	2.727	534.1
161	1350.0	515.50	306.00	.2416-01	.2910-01	.2910-01	.9000	.8477-03	.1021-02	.6502	4.690	536.7
161	1350.0	524.40	305.00	.1287-01	.1549-01	.1549-01	.9000	.4517-03	.5437-03	.3480	2.688	533.2
161	1375.0	421.60	308.00	.1332-02	.1605-02	.1605-02	.9000	.4673-04	.5633-04	.3574-01	.4990	538.7
161	1375.0	440.00	309.00	.7340-02	.8846-02	.8846-02	.9000	.2576-03	.3104-03	.1973	1.917	537.9
161	1375.0	460.00	310.00	.2480-01	.2989-01	.2989-01	.9000	.8702-03	.1049-02	.6662	4.254	538.0
161	1375.0	503.40	311.00	.6655-02	.8006-02	.8006-02	.9000	.2335-03	.2809-03	.1804	1.445	531.1
161	1375.0	531.00	312.00	.1161-01	.1397-01	.1397-01	.9000	.4074-03	.4902-03	.3144	2.273	532.0
161	1400.0	523.40	313.00	.1194-01	.1437-01	.1437-01	.9000	.4191-03	.5044-03	.3229	2.679	533.1
161	1425.0	415.10	315.00	.6294-02	.7585-02	.7585-02	.9000	.2209-03	.2662-03	.1693	1.221	537.3
161	1425.0	437.70	316.00	.1442-01	.1737-01	.1737-01	.9000	.5062-03	.6097-03	.3888	2.899	535.7
161	1425.0	466.30	317.00	.4986-01	.6011-01	.6011-01	.9000	.1750-02	.2109-02	1.337	7.858	539.4
161	1425.0	508.60	318.00	.4980-02	.5990-02	.5990-02	.9000	.1748-03	.2102-03	.1352	1.123	530.3
161	1425.0	536.50	319.00	.8272-02	.9951-02	.9951-02	.9000	.2903-03	.3492-03	.2243	1.677	530.9
161	1450.0	418.20	320.00	.4596-02	.5535-02	.5535-02	.9000	.1613-03	.1942-03	.1239	1.206	535.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2532

OH84B 60-0 OMS POD

(R4US12)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
161	1450.0	436.00	321.00	9077-02	.1093-01	.1093-01	.9000	.3185-03	.3835-03	.2450	1.892	534.4
161	1450.0	468.20	322.00	.3408-01	.4107-01	.4107-01	.9000	.1196-02	.1441-02	.9163	6.207	537.5
161	1450.0	511.10	323.00	5257-02	.6323-02	.6323-02	.9000	.1845-03	.2219-03	.1428	1.281	529.8
161	1450.0	526.60	325.00	.6204-02	.7463-02	.7463-02	.9000	.2177-03	.2619-03	.1681	1.396	531.4
161	1500.0	437.00	327.00	.5674-02	.6824-02	.6824-02	.9000	.1991-03	.2395-03	.1541	1.192	529.9
161	1500.0	470.40	328.00	.1617-01	.1945-01	.1945-01	.9000	.5673-03	.6824-03	.4387	2.733	530.5
161	1500.0	514.00	329.00	.4767-02	.5730-02	.5730-02	.9000	.1673-03	.2011-03	.1297	.9398	528.2
161	1500.0	532.30	331.00	.3366-02	.4044-02	.4044-02	.9000	.1181-03	.1419-03	.9188-01	.6076	525.9
161	1500.0	539.40	330.00	.3721-02	.4472-02	.4472-02	.9000	.1306-03	.1569-03	.1014	.7348	527.3
161	1525.0	424.00	332.00	.1181-02	.1420-02	.1420-02	.9000	.4146-04	.4982-04	.3219-01	.2494	527.3
161	1525.0	431.00	333.00	.4025-02	.4839-02	.4839-02	.9000	.1413-03	.1698-03	.1095	.7232	528.4
161	1525.0	440.00	334.00	8917-02	.1072-01	.1072-01	.9000	.3129-03	.3763-03	.2422	1.553	529.6
161	1525.0	493.00	335.00	.1607-01	.1934-01	.1934-01	.9000	.5640-03	.6786-03	.4352	3.364	532.0
161	1545.0	434.00	338.00	.2763-02	.3321-02	.3321-02	.9000	.9697-04	.1165-03	.7527-01	.6264	527.4
161	1545.0	443.00	339.00	.7892-02	.9488-02	.9488-02	.9000	.2770-03	.3330-03	.2147	1.236	528.5



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2533

OH84B 60-0 OMS POD

(R4US12)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
104	3.010	7.990	35.01	-1.989	670.6	1321.	95.92	.6925-01	3.095	3836.	.1949-02	.7719-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
104	.4350-01	.2338-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TH DEG. R
104	1325.0	428.60	298.00	.2576-02	.3101-02	.3101-02	.9000	.1120-03	.1349-03	.8741-01	.6503	540.5
104	1325.0	489.20	299.00	.3144-01	.3792-01	.3792-01	.9000	.1368-02	.1650-02	1.057	7.119	548.0
104	1325.0	506.70	301.00	.2596-01	.3124-01	.3124-01	.9000	.1129-02	.1359-02	.8814	7.028	539.9
104	1325.0	511.30	300.00	.3771-01	.4546-01	.4546-01	.9000	.1640-02	.1977-02	1.271	9.429	545.9
104	1350.0	440.40	302.00	.3385-02	.4076-02	.4076-02	.9000	.1473-03	.1773-03	1.147	1.066	541.6
104	1350.0	458.60	303.00	.1554-01	.1871-01	.1871-01	.9000	.6758-03	.8138-03	.5263	3.913	541.9
104	1350.0	498.50	304.00	.3569-01	.4298-01	.4298-01	.9000	.1553-02	.1870-02	1.209	8.426	541.9
104	1350.0	515.50	306.00	.2039-01	.2452-01	.2452-01	.9000	.8867-03	.1067-02	.6939	5.001	538.2
104	1350.0	524.40	305.00	.1714-01	.2062-01	.2062-01	.9000	.7458-03	.8968-03	.5849	4.511	536.4
104	1375.0	421.60	308.00	.1353-02	.1631-02	.1631-02	.9000	.5887-04	.7093-04	.4574-01	.6370	543.7
104	1375.0	440.00	309.00	.6070-02	.7307-02	.7307-02	.9000	.2640-03	.3178-03	.2060	1.999	540.4
104	1375.0	460.00	310.00	.3823-01	.4606-01	.4606-01	.9000	.1663-02	.2004-02	1.292	8.222	544.0
104	1375.0	503.40	311.00	.1470-01	.1767-01	.1767-01	.9000	.6394-03	.7685-03	.5027	4.019	534.5
104	1375.0	531.00	312.00	.1028-01	.1235-01	.1235-01	.9000	.4472-03	.5372-03	.3525	2.548	532.4
104	1400.0	523.40	313.00	.1112-01	.1337-01	.1337-01	.9000	.4838-03	.5815-03	.3805	3.155	534.2
104	1425.0	415.10	315.00	.4173-02	.5024-02	.5024-02	.9000	.1815-03	.2185-03	.1416	1.019	540.7
104	1425.0	437.70	316.00	.1062-01	.1277-01	.1277-01	.9000	.4617-03	.5555-03	.3612	2.690	538.5
104	1425.0	466.30	317.00	.4841-01	.5830-01	.5830-01	.9000	.2106-02	.2536-02	1.640	9.627	541.8
104	1425.0	508.60	318.00	.7034-02	.8448-02	.8448-02	.9000	.3060-03	.3675-03	.2414	2.004	531.8
104	1425.0	536.50	319.00	.6574-02	.7893-02	.7893-02	.9000	.2859-03	.3433-03	.2259	1.689	530.8
104	1450.0	418.20	320.00	.4064-02	.4890-02	.4890-02	.9000	.1768-03	.2127-03	.1383	1.343	538.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 QMS POD

(R4US12)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
104	1450.0	436.00	321.00	.9309-02	.1119-01	.1119-01	.9000	.4049-03	.4869-03	.3175	2.449	536.4
104	1450.0	468.20	322.00	.3546-01	.4269-01	.4269-01	.9000	.1543-02	.1857-02	1.204	8.144	540.2
104	1450.0	511.10	323.00	.5936-02	.7128-02	.7128-02	.9000	.2582-03	.3100-03	.2040	1.830	530.7
104	1450.0	526.60	325.00	.6532-02	.7844-02	.7844-02	.9000	.2841-03	.3412-03	.2242	1.862	531.5
104	1500.0	437.00	327.00	.6539-02	.7852-02	.7852-02	.9000	.2844-03	.3416-03	.2246	1.736	531.1
104	1500.0	470.40	328.00	.1768-01	.2123-01	.2123-01	.9000	.7688-03	.9234-03	.6066	3.777	531.7
104	1500.0	514.00	329.00	.4700-02	.5639-02	.5639-02	.9000	.2044-03	.2453-03	.1621	1.175	527.6
104	1500.0	532.30	331.00	.3648-02	.4376-02	.4376-02	.9000	.1587-03	.1903-03	.1261	.8335	526.3
104	1500.0	539.40	330.00	.3385-02	.4061-02	.4061-02	.9000	.1472-03	.1766-03	.1168	.8465	527.4
104	1525.0	424.00	332.00	.1304-02	.1564-02	.1564-02	.9000	.5670-04	.6803-04	.4498-01	3.485	527.3
104	1525.0	431.00	333.00	.4463-02	.5356-02	.5356-02	.9000	.1941-03	.2330-03	.1538	1.016	528.4
104	1525.0	440.00	334.00	.1147-01	.1377-01	.1377-01	.9000	.4989-03	.5990-03	.3945	2.529	530.1
104	1525.0	493.00	335.00	.1498-01	.1799-01	.1799-01	.9000	.6514-03	.7825-03	.5137	3.970	532.2
104	1545.0	434.00	338.00	.3363-02	.4035-02	.4035-02	.9000	.1463-03	.1755-03	.1160	.9651	527.7
104	1545.0	443.00	339.00	.9835-02	.1181-01	.1181-01	.9000	.4278-03	.5135-03	.3385	1.948	529.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2535

OH84B 60-0 OMS POD

(R4US12)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
138	3.668	8.000	35.03	-1 972	849 0	1352.	97.95	.8696-01	3.896	3881.	.2396-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
138	.4900-01	.2113-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
138	1325.0	428.60	298 00	.2804-02	.3371-02	.3371-02	.9000	.1374-03	.1652-03	.1105	.8187	547.8
138	1325.0	489.20	299.00	.4032-01	.4866-01	.4866-01	.9000	.1976-02	.2384-02	1.559	10.42	562.8
138	1325.0	506.70	301 00	.2676-01	.3217-01	.3217-01	.9000	.1312-02	.1576-02	1.055	8.378	547.4
138	1325 0	511.30	300.00	.4153-01	.5005-01	.5005-01	.9000	.2035-02	.2453-02	1.615	11.91	558.1
138	1350.0	440.40	302 00	.4728-02	.5689-02	.5689-02	.9000	.2317-03	.2788-03	.1854	1.715	551.4
138	1350.0	458.60	303.00	.4253-01	.5129-01	.5129-01	.9000	.2084-02	.2513-02	1.649	12.15	560.3
138	1350.0	498.50	304 00	.3777-01	.4548-01	.4548-01	.9000	.1851-02	.2229-02	1.477	10.23	553.9
138	1350.0	515.50	306.00	.1996-01	.2399-01	.2399-01	.9000	.9781-03	.1175-02	.7879	5.656	546.2
138	1350.0	524 40	305.00	.1845-01	.2217-01	.2217-01	.9000	.9041-03	.1086-02	.7283	5.589	546.1
138	1375.0	421.60	308.00	.1501-02	.1805-02	.1805-02	.9000	.7353-04	.8845-04	.5893-01	.8180	550.2
138	1375.0	440.00	309.00	.7328-02	.8815-02	.8815-02	.9000	.3591-03	.4320-03	.2878	2.778	550.3
138	1375.0	460.00	310 00	.4897-01	.5903-01	.5903-01	.9000	.2400-02	.2893-02	1.903	12.02	558.8
138	1375.0	503.40	311 00	.1576-01	.1894-01	.1894-01	.9000	.7723-03	.9279-03	.6229	4.953	545.2
138	1375 0	531 00	312 00	.1059-01	.1271-01	.1271-01	.9000	.5188-03	.6227-03	.4203	3.025	541.5
138	1400 0	523 40	313 00	.1021-01	.1226-01	.1226-01	.9000	.5005-03	.6009-03	.4052	3.347	542 1
138	1425 0	415.10	315 00	.4538-02	.5454-02	.5454-02	.9000	.2223-03	.2673-03	.1788	1.283	547 4
138	1425 0	437 70	316.00	.9510-02	.1143-01	.1143-01	.9000	.4660-03	.5601-03	.3748	2.779	547.3
138	1425 0	466 30	317.00	.4604-01	.5542-01	.5542-01	.9000	.2256-02	.2715-02	1.801	10 51	553 1
138	1425 0	508.60	318.00	.7829-02	.9399-02	.9399-02	.9000	.3837-03	.4606-03	.3105	2.564	542 4
138	1425 0	536.50	319.00	.6221-02	.7464-02	.7464-02	.9000	.3048-03	.3657-03	.2474	1.841	540.0
138	1450 0	418 20	320 00	.3921-02	.4711-02	.4711-02	.9000	.1921-03	.2309-03	.1548	1.497	546.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2538

OH84B 60-0 OMS POD

(R4US12)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
138	1450.0	436.00	321.00	.9141-02	.1098-01	.1098-01	.9000	.4479-03	.5382-03	.3608	2.769	546.0
138	1450.0	468.20	322.00	.3422-01	.4117-01	.4117-01	.9000	.1677-02	.2018-02	1.341	9.022	551.6
138	1450.0	511.10	323.00	.6230-02	.7477-02	.7477-02	.9000	.3053-03	.3664-03	.2474	2.207	541.4
138	1450.0	526.60	325.00	.6221-02	.7465-02	.7465-02	.9000	.3048-03	.3658-03	.2473	2.044	540.4
138	1500.0	437.00	327.00	.6768-02	.8124-02	.8124-02	.9000	.3316-03	.3981-03	.2686	2.065	541.9
138	1500.0	470.40	328.00	.1687-01	.2026-01	.2026-01	.9000	.8268-03	.9928-03	.6685	4.139	543.1
138	1500.0	514.00	329.00	.4312-02	.5172-02	.5172-02	.9000	.2113-03	.2534-03	.1717	1.237	539.1
138	1500.0	532.30	331.00	.3066-02	.3676-02	.3676-02	.9000	.1502-03	.1801-03	.1224	.8046	537.2
138	1500.0	539.40	330.00	.3153-02	.3781-02	.3781-02	.9000	.1545-03	.1853-03	.1256	.9053	538.5
138	1525.0	424.00	332.00	.1357-02	.1628-02	.1628-02	.9000	.6650-04	.7975-04	.5410-01	.4168	538.2
138	1525.0	431.00	333.00	.4697-02	.5635-02	.5635-02	.9000	.2301-03	.2761-03	.1868	1.227	539.8
138	1525.0	440.00	334.00	.1143-01	.1373-01	.1373-01	.9000	.5603-03	.6727-03	.4534	2.888	542.5
138	1525.0	493.00	335.00	.1454-01	.1746-01	.1746-01	.9000	.7123-03	.8555-03	.5750	4.417	544.4
138	1545.0	434.00	338.00	.3577-02	.4290-02	.4290-02	.9000	.1753-03	.2102-03	.1424	1.178	538.9
138	1545.0	443.00	339.00	.1059-01	.1271-01	.1271-01	.9000	.5191-03	.6230-03	.4207	2.407	541.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US13)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -1.000 ELEVON = .0000  
 BOFLAP = .0000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
158	2.023	7.980	35.02	-0.9923	435.0	1293.	94.11	.4529-01	2.019	3795.	.1299-02	.7573-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
158	3500-01	.2857-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
158	1325.0	428.60	298.00	.1381-02	.1666-02	.1666-02	.9000	.4835-04	.5830-04	.3660-01	.2729	535.7
158	1325.0	489.20	299.00	.1130-01	.1365-01	.1365-01	.9000	.3957-03	.4776-03	.2980	2.017	539.4
158	1325.0	506.70	301.00	.3625-01	.4379-01	.4379-01	.9000	.1269-02	.1533-02	.9526	7.588	541.9
158	1325.0	511.30	300.00	.4610-01	.5572-01	.5572-01	.9000	.1613-02	.1950-02	1.208	8.970	544.0
158	1350.0	440.40	302.00	.4028-02	.4860-02	.4860-02	.9000	.1410-03	.1701-03	.1063	.9899	538.3
158	1350.0	458.60	303.00	.1354-01	.1634-01	.1634-01	.9000	.4738-03	.5719-03	.3571	2.659	539.0
158	1350.0	498.50	304.00	.1218-01	.1469-01	.1469-01	.9000	.4263-03	.5141-03	.3225	2.255	536.0
158	1350.0	515.50	306.00	.2405-01	.2903-01	.2903-01	.9000	.8417-03	.1016-02	.6342	4.569	539.2
158	1350.0	524.40	305.00	.1005-01	.1211-01	.1211-01	.9000	.3516-03	.4240-03	.2663	2.055	535.4
158	1375.0	421.60	308.00	.2237-02	.2700-02	.2700-02	.9000	.7831-04	.9451-04	.5904-01	.8243	538.7
158	1375.0	440.00	309.00	.9735-02	.1175-01	.1175-01	.9000	.3407-03	.4113-03	.2569	2.495	538.8
158	1375.0	460.00	310.00	.3724-01	.4498-01	.4498-01	.9000	.1303-02	.1574-02	.9789	6.239	541.6
158	1375.0	503.40	311.00	.9431-02	.1137-01	.1137-01	.9000	.3301-03	.3979-03	.2503	2.002	534.3
158	1375.0	531.00	312.00	.6541-02	.7884-02	.7884-02	.9000	.2290-03	.2760-03	.1738	1.255	533.8
158	1400.0	523.40	313.00	.1122-01	.1354-01	.1354-01	.9000	.3928-03	.4738-03	.2973	2.463	535.9
158	1425.0	415.10	315.00	.3838-02	.4631-02	.4631-02	.9000	.1343-03	.1621-03	.1015	.7320	537.1
158	1425.0	437.70	316.00	.5698-02	.6872-02	.6872-02	.9000	.1994-03	.2405-03	.1509	1.125	536.1
158	1425.0	466.30	317.00	.2161-01	.2607-01	.2607-01	.9000	.7565-03	.9124-03	.5724	3.370	536.0
158	1425.0	508.60	318.00	.7059-02	.8509-02	.8509-02	.9000	.2471-03	.2978-03	.1875	1.555	533.9
158	1425.0	536.50	319.00	.5788-02	.6975-02	.6975-02	.9000	.2026-03	.2441-03	.1539	1.149	533.1
158	1450.0	418.20	320.00	.2504-02	.3020-02	.3020-02	.9000	.8764-04	.1057-03	.6633-01	.6451	535.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US13)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
158	1450.0	436.00	321.00	.5485-02	.6613-02	.6613-02	.9000	.1920-03	.2314-03	.1455	1.123	534.8
158	1450.0	468.20	322.00	.1642-01	.1980-01	.1980-01	.9000	.5749-03	.6932-03	.4354	2.953	535.2
158	1450.0	511.10	323.00	.6238-02	.7517-02	.7517-02	.9000	.2183-03	.2631-03	.1658	1.486	533.1
158	1450.0	526.60	325.00	.5439-02	.6557-02	.6557-02	.9000	.1904-03	.2295-03	.1443	1.197	534.5
158	1500.0	437.00	327.00	.3680-02	.4434-02	.4434-02	.9000	.1288-03	.1552-03	.9790-01	.7565	532.5
158	1500.0	470.40	328.00	.7135-02	.8596-02	.8596-02	.9000	.2497-03	.3009-03	.1899	1.182	532.2
158	1500.0	514.00	329.00	.5383-02	.6486-02	.6486-02	.9000	.1884-03	.2270-03	.1433	1.036	532.0
158	1500.0	532.30	331.00	.2237-02	.2693-02	.2693-02	.9000	.7829-04	.9426-04	.5975-01	.3944	529.5
158	1500.0	539.40	330.00	.3636-02	.4379-02	.4379-02	.9000	.1272-03	.1533-03	.9690-01	.7009	531.2
158	1525.0	424.00	332.00	.7415-03	.8930-03	.8930-03	.9000	.2595-04	.3126-04	.1977-01	.1529	530.8
158	1525.0	431.00	333.00	.2529-02	.3046-02	.3046-02	.9000	.8850-04	.1066-03	.6737-01	.4443	531.4
158	1525.0	440.00	334.00	.6138-02	.7394-02	.7394-02	.9000	.2148-03	.2588-03	.1634	1.047	531.9
158	1525.0	493.00	335.00	.5046-02	.6078-02	.6078-02	.9000	.1766-03	.2127-03	.1344	1.039	531.7
158	1545.0	434.00	338.00	.1879-02	.2263-02	.2263-02	.9000	.6577-04	.7921-04	.5011-01	.4162	530.8
158	1545.0	443.00	339.00	.5443-02	.6558-02	.6558-02	.9000	.1905-03	.2295-03	.1449	.8329	532.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2539

OH84B 60-0 OMS POD

(R4US13)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
101	2.984	7.990	35.02	-.9871	670.0	1328.	96 43	.6919-01	3.092	3846.	.1937-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
101	.4352-01	.2346-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
101	1325.0	428.60	298.00	.1584-02	.1909-02	.1909-02	.9000	.6894-04	.8307-04	.5380-01	.3989	547.3
101	1325.0	489.20	299.00	.1336-01	.1610-01	.1610-01	.9000	.5812-03	.7008-03	.4522	3.044	549.7
101	1325.0	506.70	301.00	.2937-01	.3539-01	.3539-01	.9000	.1278-02	.1540-02	.9983	7.933	546.6
101	1325.0	511.30	300.00	.3810-01	.4596-01	.4596-01	.9000	.1658-02	.2000-02	1.286	9.514	551.9
101	1350.0	440.40	302.00	.3860-02	.4654-02	.4654-02	.9000	.1680-03	.2025-03	.1307	1.210	549.3
101	1350.0	458.60	303.00	.1207-01	.1456-01	.1456-01	.9000	.5254-03	.6335-03	.4087	3.027	549.7
101	1350.0	498.50	304.00	.1287-01	.1550-01	.1550-01	.9000	.5601-03	.6746-03	.4383	3.050	545.2
101	1350.0	515.50	306.00	.2223-01	.2677-01	.2677-01	.9000	.9672-03	.1165-02	.7565	5.432	545.6
101	1350.0	524.40	305.00	.1098-01	.1322-01	.1322-01	.9000	.4780-03	.5753-03	.3752	2.895	542.7
101	1375.0	421.60	308.00	.2455-02	.2960-02	.2960-02	.9000	.1068-03	.1288-03	.8307-01	1.153	550.0
101	1375.0	440.00	309.00	.1035-01	.1248-01	.1248-01	.9000	.4503-03	.5431-03	.3498	3.376	550.9
101	1375.0	460.00	310.00	.4817-01	.5820-01	.5820-01	.9000	.2096-02	.2533-02	1.616	10.22	557.0
101	1375.0	503.40	311.00	.8355-02	.1005-01	.1005-01	.9000	.3636-03	.4375-03	.2856	2.274	542.2
101	1375.0	531.00	312.00	.8213-02	.9879-02	.9879-02	.9000	.3574-03	.4299-03	.2814	2.026	540.4
101	1400.0	523.40	313.00	.1103-01	.1327-01	.1327-01	.9000	.4799-03	.5775-03	.3771	3.115	541.9
101	1425.0	415.10	315.00	.4713-02	.5680-02	.5680-02	.9000	.2051-03	.2472-03	.1601	1.148	547.3
101	1425.0	437.70	316.00	.9397-02	.1132-01	.1132-01	.9000	.4090-03	.4926-03	.3196	2.371	546.1
101	1425.0	465.30	317.00	.3194-01	.3849-01	.3849-01	.9000	.1390-02	.1675-02	1.084	6.341	547.9
101	1425.0	508.60	318.00	.6667-02	.8021-02	.8021-02	.9000	.2901-03	.3491-03	.2282	1.885	541.3
101	1425.0	536.50	319.00	.6388-02	.7682-02	.7682-02	.9000	.2780-03	.3343-03	.2191	1.631	539.5
101	1450.0	418.20	320.00	.3054-02	.3679-02	.3679-02	.9000	.1329-03	.1601-03	.1039	1.005	546.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2540

OH84B 60-0 OMS POD

(R4US13)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
101	1450.0	436.00	321.00	.7254-02	.8736-02	.8736-02	.9000	.3157-03	.3802-03	.2470	1.896	545.2
101	1450.0	468.20	322.00	.2409-01	.2903-01	.2903-01	.9000	.1048 J2	.1263-02	.8190	5.522	546.5
101	1450.0	511.10	323.00	.6177-02	.7431-02	.7431-02	.9000	.2698-03	.3234-03	.2116	1.889	540.6
101	1450.0	526.60	325.00	.6470-02	.7782-02	.7782-02	.9000	.2816-03	.3386-03	.2218	1.834	540.0
101	1500.0	437.00	327.00	.5224-02	.6285-02	.6285-02	.9000	.2273-03	.2735-03	.1789	1.376	540.9
101	1500.0	470.40	328.00	.1059-01	.1274-01	.1274-01	.9000	.4610-03	.5546-03	.3629	2.250	540.5
101	1500.0	514.00	329.00	.4539-02	.5457-02	.5457-02	.9000	.1975-03	.2375-03	.1559	1.124	538.4
101	1500.0	532.30	331.00	.2793-02	.3357-02	.3357-02	.9000	.1216-03	.1461-03	.9616-01	.6324	536.6
101	1500.0	539.40	330.00	.2719-02	.3268-02	.3268-02	.9000	.1183-03	.1422-03	.9348-01	.6740	537.7
101	1525.0	424.00	332.00	.1053-02	.1266-02	.1266-02	.9000	.4582-04	.5508-04	.3617-01	.2786	538.3
101	1525.0	431.00	333.00	.3624-02	.4358-02	.4358-02	.9000	.1577-03	.1896-03	.1243	.8162	539.5
101	1525.0	440.00	334.00	.8465-02	.1018-01	.1018-01	.9000	.3684-03	.4431-03	.2899	1.848	540.7
101	1525.0	493.00	335.00	.8728-02	.1050-01	.1050-01	.9000	.3798-03	.4569-03	.2990	2.302	540.4
101	1545.0	434.00	338.00	.2748-02	.3304-02	.3304-02	.9000	.1196-03	.1438-03	.9438-01	.7810	538.4
101	1545.0	443.00	339.00	.7612-02	.9154-02	.9154-02	.9000	.3313-03	.3984-03	.2611	1.495	539.6



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2541

OH84B 60-0 OMS POD

(R4US13)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -1.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
135	3.683	8.000	35.07	-.9652	852.5	1352.	97.95	.8732-01	3.912	3881.	.2406-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
135	.4910-01	.2109-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
135	1325.0	428.60	298.00	.1988-02	.2388-02	.2388-02	.9000	.9763-04	.1172-03	.7890-01	.5861	543.5
135	1325.0	489.20	299.00	.1539-01	.1850-01	.1850-01	.9000	.7557-03	.9083-03	.6083	4.101	546.8
135	1325.0	506.70	301.00	.2804-01	.3367-01	.3367-01	.9000	.1377-02	.1654-02	1.111	8.841	544.4
135	1325.0	511.30	300.00	.3933-01	.4732-01	.4732-01	.9000	.1931-02	.2323-02	1.546	11.44	551.2
135	1350.0	440.40	302.00	.2857-02	.3432-02	.3432-02	.9000	.1403-03	.1685-03	.1131	1.049	545.5
135	1350.0	458.60	303.00	.1511-01	.1816-01	.1816-01	.9000	.7419-03	.8917-03	.5971	4.428	546.8
135	1350.0	498.50	304.00	.1690-01	.2028-01	.2028-01	.9000	.8297-03	.9958-03	.6724	4.687	541.3
135	1350.0	515.50	306.00	.2117-01	.2542-01	.2542-01	.9000	.1040-02	.1248-02	.8413	6.051	542.4
135	1350.0	524.40	305.00	.1282-01	.1538-01	.1538-01	.9000	.6295-03	.7551-03	.5115	3.940	539.0
135	1375.0	421.60	308.00	.1315-02	.1581-02	.1581-02	.9000	.6458-04	.7761-04	.5198-01	.7227	546.8
135	1375.0	440.00	309.00	.6475-02	.7778-02	.7778-02	.9000	.3179-03	.3819-03	.2565	2.483	544.9
135	1375.0	460.00	310.00	.3844-01	.4624-01	.4624-01	.9000	.1888-02	.2270-02	1.514	9.606	549.8
135	1375.0	503.40	311.00	.9556-02	.1146-01	.1146-01	.9000	.4692-03	.5625-03	.3823	3.053	536.8
135	1375.0	531.00	312.00	.9781-02	.1172-01	.1172-01	.9000	.4803-03	.5757-03	.3916	2.826	536.2
135	1400.0	523.40	313.00	.9888-02	.1185-01	.1185-01	.9000	.4855-03	.5821-03	.3955	3.275	537.1
135	1425.0	415.10	315.00	.4273-02	.5132-02	.5132-02	.9000	.2098-03	.2520-03	.1695	1.219	543.7
135	1425.0	437.70	316.00	.9691-02	.1163-01	.1163-01	.9000	.4758-03	.5710-03	.3857	2.869	541.0
135	1425.0	466.30	317.00	.3293-01	.3954-01	.3954-01	.9000	.1617-02	.1942-02	1.308	7.670	543.0
135	1425.0	508.60	318.00	.7474-02	.8957-02	.8957-02	.9000	.3670-03	.4398-03	.2997	2.485	535.0
135	1425.0	536.50	319.00	.6694-02	.8020-02	.8020-02	.9000	.3287-03	.3938-03	.2686	2.004	534.5
135	1450.0	418.20	320.00	.3132-02	.3759-02	.3759-02	.9000	.1538-03	.1846-03	.1246	1.209	541.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2542

OH84B 60-0 OMS POD

(R4US13)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
135	1450 0	436.00	321.00	.7307-02	.8765-02	.8765-02	.9000	.3588-03	.4304-03	.2915	2.245	539.2
135	1450 0	468.20	322 00	.2470-01	.2964-01	.2964-01	.9000	.1213-02	.1456-02	.9832	6.647	541.1
135	1450.0	511.10	323.00	.6362-02	.7621-02	.7621-02	.9000	.3124-03	.3742-03	.2555	2.289	533.7
135	1450.0	526.60	325.00	.6228-02	.7461-02	.7461-02	.9000	.3058-03	.3663-03	.2500	2.074	534.0
135	1500.0	437.00	327 00	.5513-02	.6605-02	.6605-02	.9000	.2707-03	.3243-03	.2214	1.710	533.9
135	1500.0	470.40	328.00	.1167-01	.1398-01	.1398-01	.9000	.5732-03	.6866-03	.4692	2.919	533.2
135	1500.0	514.00	329 00	.3941-02	.4717-02	.4717-02	.9000	.1935-03	.2316-03	.1589	1.150	530.5
135	1500 0	532 30	331 00	.3081-02	.3687-02	.3687-02	.9000	.1513-03	.1810-03	.1245	8217	529.1
135	1500.0	539.40	330 00	.2966-02	.3551-02	.3551-02	.9000	.1457-03	.1743-03	.1196	.8658	530.3
135	1525 0	424.00	332.00	.1141-02	.1366-02	.1366-02	.9000	.5605-04	.6708-04	.4605-01	.3563	530.1
135	1525 0	431.00	333.00	.3924-02	.4698-02	.4698-02	.9000	.1927-03	.2307-03	.1580	1.042	531.7
135	1525 0	440.00	334 00	.9818-02	.1176-01	.1176-01	.9000	.4821-03	.5774-03	.3946	2.526	533.1
135	1525 0	493.00	335 00	.9542-02	.1143-01	.1143-01	.9000	.4685-03	.5612-03	.3833	2.960	533.6
135	1545.0	434 00	338.00	.3061-02	.3665-02	.3665-02	.9000	.1503-03	.1799-03	.1234	1.025	530.8
135	1545.0	443.00	339 00	.8977-02	.1075-01	.1075-01	.9000	.4408-03	.5278-03	.3614	2 077	531.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH94B 60-0 OMS POD

(R4US14)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
13	.5302	7.900	34 97	.2130-02	104.2	1240.	91.95	.1158-01	.5059	3714.	.3399-03	.7399-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
13	.1739-01	.5561-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
13	1325.0	428.60	298.00	.1130-02	.1371-02	.1371-02	.9000	.1966-04	.2385-04	.1389-01	.1038	533.0
13	1325.0	489.20	299.00	.7797-04	.9449-04	.9449-04	.9000	.1356-05	.1644-05	.9612-03	.6532-02	530.9
13	1325.0	506.70	301.00	.1168-01	.1416-01	.1416-01	.9000	.2032-03	.2463-03	.1437	1.150	532.5
13	1325.0	511.30	300.00	.1008-01	.1223-01	.1223-01	.9000	.1754-03	.2127-03	.1239	.9248	533.4
13	1350.0	440 40	302 00	.1678-02	.2035-02	.2035-02	.9000	.2919-04	.3540-04	.2063-01	.1926	532.9
13	1350 0	458 60	303.00	.3463-02	.4199-02	.4199-02	.9000	.6024-04	.7303-04	.4262-01	.3184	532.1
13	1350.0	498 50	304.00	.3693-02	.4476-02	.4476-02	.9000	.6424-04	.7785-04	.4556-01	.3194	530.5
13	1350.0	515.50	306.00	.1744-01	.2116-01	.2116-01	.9000	.3034-03	.3680-03	.2143	1.548	533.5
13	1350.0	524.40	305 00	.1028-01	.1246-01	.1246-01	.9000	.1788-03	.2168-03	.1265	.9780	532.0
13	1375.0	421.60	308 00	.1295-02	.1571-02	.1571-02	.9000	.2252-04	.2733-04	.1587-01	.2220	535.0
13	1375 0	440 00	309.00	.3216-02	.3900-02	.3900-02	.9000	.5593-04	.6783-04	.3952-01	.3849	533.1
13	1375.0	460 00	310.00	.6155-02	.7460-02	.7460-02	.9000	.1071-03	.1298-03	.7586-01	.4861	531.1
13	1375.0	503.40	311 00	.3928-02	.4758-02	.4758-02	.9000	.6832-04	.8277-04	.4854-01	.3891	529.3
13	1375.0	531.00	312.00	.6763-02	.8194-02	.8194-02	.9000	.1176-03	.1425-03	.8345-01	.6040	530.2
13	1400.0	523.40	313.00	.9520-02	.1154-01	.1154-01	.9000	.1656-03	.2008-03	.1172	.9725	532.2
13	1425 0	415 10	315 00	.1141-02	.1384-02	.1384-02	.9000	.1985-04	.2408-04	.1401-01	.1012	533.8
13	1425 0	437.70	316 00	.2526-02	.3062-02	.3062-02	.9000	.4394-04	.5326-04	.3113-01	.2327	531.2
13	1425 0	466 30	317.00	.7750-02	.9390-02	.9390-02	.9000	.1348-03	.1633-03	.9566-01	.5648	530.0
13	1425 0	508 60	318.00	.2935-02	.3556-02	.3556-02	.9000	.5106-04	.6185-04	.3626-01	.3014	529.5
13	1425.0	536.50	319.00	.4925-02	.5968-02	.5968-02	.9000	.8567-04	.1038-03	.6078-01	.4545	530.2
13	1450.0	418 20	320.00	.1405-02	.1704-02	.1704-02	.9000	.2445-04	.2964-04	.1729-01	.1684	532.6

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O OMS POD

(R4US14)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
13	1450 0	436.00	321 00	.1789-02	.2168-02	.2168-02	.9000	.3111-04	.3771-04	.2205-01	.1705	530.9
13	1450.0	468.20	322 00	.6285-02	.7614-02	.7614-02	.9000	.1093-03	.1324-03	.7763-01	.5280	529.5
13	1450.0	511.10	323 00	.2237-02	.2710-02	.2710-02	.9000	.3891-04	.4713-04	.2767-01	.2485	528.7
13	1450.0	526.60	325 00	.5727-02	.6940-02	.6940-02	.9000	.9961-04	.1207-03	.7066-01	.5871	530.3
13	1500.0	437.00	327 00	.4095-03	.4958-03	.4958-03	.9000	.7122-05	.8625-05	.5067-02	.3924-01	528.2
13	1500 0	470.40	328 00	.2795-02	.3385-02	.3385-02	.9000	.4862-04	.5887-04	.3461-01	.2160	527.7
13	1500.0	514.00	329 00	.2073-02	.2510-02	.2510-02	.9000	.3606-04	.4365-04	.2568-01	.1861	527.7
13	1500.0	532.30	331 00	.5102-02	.6176-02	.6176-02	.9000	.8874-04	.1074-03	.6327-01	.4182	526.7
13	1500 0	539 40	330 00	.4679-02	.5666-02	.5666-02	.9000	.8139-04	.9855-04	.5793-01	.4197	527 9
13	1525 0	424 00	332 00	.1935-03	.2343-03	.2343-03	.9000	.3366-05	.4076-05	.2395-02	.1855-01	528.1
13	1525 0	431 00	333 00	.5194-03	.6290-03	.6290-03	.9000	.9034-05	.1094-04	.6430-02	.4248-01	528.0
13	1525 0	440 00	334 00	.3944-03	.4775-03	.4775-03	.9000	.6861-05	.8306-05	.4888-02	.3138-01	527.3
13	1525.0	493.00	335 00	.2528-02	.3059-02	.3059-02	.9000	.4396-04	.5321-04	.3137-01	.2432	526 2
13	1545 0	434.00	338 00	.5671-03	.6867-03	.6867-03	.9000	.9865-05	.1194-04	.7023-02	.5843-01	527 7
13	1545.0	443.00	339 00	.9345-03	.1131-02	.1131-02	.9000	.1625-04	.1968-04	.1158-01	.6669-01	527.5

DATE 23 FEB 60

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2545

OH84B 60-0 OMS POD

(R4US14)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
60	2.004	7.980	34.98	.7044-03	434 5	1300	94 62	4523-01	2.016	3805.	.1290-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
60	.3501-01	.2868-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
60	1325.0	428.60	298.00	.1340-02	.1613-02	.1613-02	.9000	.4691-04	.5647-04	.3601-01	.2691	531.9
60	1325.0	489.20	299.00	.1435-01	.1728-01	.1728-01	.9000	.5025-03	.6052-03	.3849	2.612	533.6
60	1325.0	506.70	301 00	.3535-01	.4261-01	.4261-01	.9000	.1238-02	.1492-02	.9444	7.542	536.7
60	1325.0	511.30	300 00	.5222-01	.6300-01	.6300-01	.9000	.1828-02	.2206-02	1.389	10.34	539.9
60	1350.0	440.40	302.00	.4127-02	.4969-02	.4969-02	.9000	.1445-03	.1740-03	.1109	1.036	532.3
60	1350.0	458.60	303 00	.1336-01	.1609-01	.1609-01	.9000	.4677-03	.5633-03	.3580	2.672	534.2
60	1350 0	498.50	304 00	.1126-01	.1355-01	.1355-01	.9000	.3941-03	.4742-03	.3032	2.126	530.3
60	1350.0	515 50	306 00	.2125-01	.2559-01	.2559-01	.9000	.7440-03	.8959-03	.5704	4 122	533.0
60	1350 0	524.40	305 00	.1325-01	.1594-01	.1594-01	.9000	.4639-03	.5582-03	.3567	2 759	530.7
60	1375 0	421.60	308 00	.1998-02	.2407-02	.2407-02	.9000	.6996-04	.8427-04	.5353-01	.7489	534.5
60	1375 0	440 00	309.00	.6692-02	.8058-02	.8058-02	.9000	.2343-03	.2821-03	.1797	1 751	532.7
60	1375 0	460 00	310 00	.1779-01	.2142-01	.2142-01	.9000	.6230-03	.7501-03	.4780	3.061	532.4
60	1375.0	503 40	311.00	.1448-01	.1742-01	.1742-01	.9000	.5071-03	.6101-03	.3903	3.128	530.0
60	1375 0	531 00	312 00	.7143-02	.8588-02	.8588-02	.9000	.2501-03	.3007-03	.1931	1 400	527.5
60	1400.0	523.40	313 00	.1018-01	.1225-01	.1225-01	.9000	.3554-03	.4288-03	.2743	2.280	529 9
60	1425 0	415 10	315.00	.3089-02	.3720-02	.3720-02	.9000	.1082-03	.1302-03	.8294-01	.5994	532 9
60	1425 0	437 70	316 00	.4960-02	.5969-02	.5969-02	.9000	.1737-03	.2090-03	.1335	.9985	530.7
60	1425 0	466 30	317 00	.1143-01	.1375-01	.1375-01	.9000	.4002-03	.4814-03	.3082	1.820	529 5
60	1425 0	508 60	318 00	.7125-02	.8569-02	.8569-02	.9000	.2495-03	.3000-03	.1924	1.600	528 3
60	1425 0	536 50	319 00	.6785-02	.8158-02	.8158-02	.9000	.2375-03	.2856-03	.1834	1.373	527 6
60	1450 0	418 20	320 00	.2008-02	.2417-02	.2417-02	.9000	.7032-04	.8463-04	.5403-01	.5267	531 3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2546

OH84B 60-0 OMS POD

(R4US14)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
60	1450.0	436.00	321.00	.4137-02	.4977-02	.4977-02	.9000	.1448-03	.1743-03	.1115	.8625	530.0
60	1450.0	468.20	322.00	.7899-02	.9500-02	.9500-02	.9000	.2765-03	.3326-03	.2132	1.451	528.6
60	1450.0	511.10	323.00	.5613-02	.6749-02	.6749-02	.9000	.1965-03	.2363-03	.1518	1.365	527.2
60	1450.0	526.60	325.00	.5891-02	.7083-02	.7083-02	.9000	.2062-03	.2480-03	.1593	1.325	527.5
60	1500.0	437.00	327 00	.2917-02	.3507-02	.3507-02	.9000	.1021-03	.1228-03	.7895-01	.6118	526.7
60	1500.0	470.40	328.00	.6786-02	.8157-02	.8157-02	.9000	.2376-03	.2856-03	.1837	1.147	526.6
60	1500.0	514.00	329.00	.4112-02	.4942-02	.4942-02	.9000	.1440-03	.1730-03	.1114	.8082	525.7
60	1500.0	532.30	331.00	.2823-02	.3390-02	.3390-02	.9000	.9883-04	.1187-03	.7676-01	.5084	523.0
60	1500.0	539 40	330 00	.5415-02	.6506-02	.6506-02	.9000	.1896-03	.2278-03	.1469	1.066	525.0
60	1525.0	424.00	332.00	.5114-03	.6145-03	.6145-03	.9000	.1791-04	.2151-04	.1387-01	.1076	524.9
60	1525.0	431 00	333.00	.2130-02	.2559-02	.2559-02	.9000	.7457-04	.8961-04	.5775-01	.3820	525.3
60	1525 0	440 00	334.00	.5519-02	.6632-02	.6632-02	.9000	.1932-03	.2322-03	.1496	9612	525.5
60	1525.0	493 00	335.00	.5562-02	.6683-02	.6683-02	.9000	.1947-03	.2340-03	.1509	1.171	524.7
60	1545.0	434 00	338.00	.1634-02	.1963-02	.1963-02	.9000	.5720-04	.6873-04	.4429-01	.3689	525.4
60	1545.0	443.00	339.00	.5016-02	.6029-02	.6029-02	.9000	.1756-03	.2111-03	.1358	.7828	526.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2547

OH84B 60-0 OMS POD

(R4US14)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
79	3 047	7.990	35 01	- 6951-03	670.5	1310.	95.12	.6924-01	3.094	3820.	.1965-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
79	.4343-01	.2326-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
79	1325 0	428.60	298.00	.1763-02	.2121-02	.2121-02	.9000	.7655-04	.9212-04	.5931-01	.4425	534.8
79	1325.0	489.20	299.00	.1357-01	.1634-01	.1634-01	.9000	.5895-03	.7098-03	.4555	3.086	538.9
79	1325.0	505.70	301.00	.3145-01	.3789-01	.3789-01	.9000	.1366-02	.1646-02	1 053	8.401	538.8
79	1325.0	511 30	300.00	.4140-01	.4992-01	.4992-01	.9000	.1798-02	.2168-02	1.379	10.25	542.6
79	1350.0	440.40	302.00	.5322-02	.6406-02	.6406-02	.9000	.2311-03	.2782-03	.1789	1.668	535.6
79	1350.0	458.60	303.00	.1312-01	.1580-01	.1580-01	.9000	.5698-03	.6862-03	.4397	3.275	537.9
79	1350.0	498 50	304 00	.1305-01	.1570-01	.1570-01	.9000	.5666-03	.6816-03	.4397	3.078	533.6
79	1350.0	515 50	306 00	.2021-01	.2432-01	.2432-01	.9000	.8775-03	.1056-02	.6793	4.902	535.6
79	1350.0	524.40	305 00	.1040-01	.1250-01	.1250-01	.9000	.4517-03	.5431-03	.3513	2.716	531 8
79	1375.0	421 60	308 00	.2251-02	.2711-02	.2711-02	.9000	.9778-04	.1177-03	.7554-01	1 055	537 2
79	1375.0	440 00	309 00	.7975-02	.9599-02	.9599-02	.9000	.3463-03	.4169-03	.2680	2.607	535 8
79	1375.0	460 00	310 00	.3123-01	.3764-01	.3764-01	.9000	.1356-02	.1635-02	1.044	6.658	540 1
79	1375.0	503 40	311 00	.1077-01	.1295-01	.1295-01	.9000	.4678-03	.5623-03	.3644	2 919	530 8
79	1375.0	531 00	312.00	.6344-02	.8343-02	.8343-02	.9000	.3016-03	.3623-03	.2355	1 706	528 8
79	1400 0	523 40	313 00	.9608-02	.1155-01	.1155-01	.9000	.4173-03	.5017-03	.3247	2 696	531 6
79	1425 0	415 10	315 00	.3582-02	.4311-02	.4311-02	.9000	.1556-03	.1872-03	.1204	8691	535 6
79	1425 0	437 70	316 00	.7662-02	.9216-02	.9216-02	.9000	.3328-03	.4002-03	.2585	1.931	532 8
79	1425 0	466 30	317 00	.1908-01	.2295-01	.2295-01	.9000	.8284-03	.9966-03	.6432	3 791	533.3
79	1425 0	508 60	318 00	.6908-02	.8302-02	.8302-02	.9000	.3000-03	.3606-03	.2339	1 944	529.9
79	1425.0	536 50	319 00	.6267-02	.7529-02	.7529-02	.9000	.2722-03	.3270-03	.2125	1.590	529.8
79	1450 0	418.20	320 00	.2362-02	.2842-02	.2842-02	.9000	.1026-03	.1234-03	.7960-01	.7751	533.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2548

OH84B 60-0 OMS POD

(R4US14)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
79	1450.0	436.00	321.00	.5554-02	.6679-02	.6679-02	.9000	.2412-03	.2901-03	.1876	1.450	532.0
79	1450.0	468.20	322.00	.1410-01	.1695-01	.1695-01	.9000	.6123-03	.7362-03	.4763	3.235	531.8
79	1450.0	511.10	323.00	.6219-02	.7473-02	.7473-02	.9000	.2701-03	.3245-03	.2109	1.894	528.9
79	1450.0	526.60	325.00	.5640-02	.6776-02	.6776-02	.9000	.2449-03	.2943-03	.1912	1.590	529.0
79	1500.0	437.00	327.00	.4190-02	.5033-02	.5033-02	.9000	.1820-03	.2186-03	.1422	1.101	528.2
79	1500.0	470.40	328.00	.8095-02	.9725-02	.9725-02	.9000	.3516-03	.4223-03	.2747	1.713	528.3
79	1500.0	514.00	329.00	.5512-02	.6620-02	.6620-02	.9000	.2394-03	.2875-03	.1874	1.358	526.9
79	1500.0	532.30	331.00	.2630-02	.3156-02	.3156-02	.9000	.1142-03	.1371-03	.8977-01	.5943	523.9
79	1500.0	539.40	330.00	.3801-02	.4563-02	.4563-02	.9000	.1651-03	.1982-03	.1294	.9384	525.9
79	1525.0	424.00	332.00	.9964-03	.1196-02	.1196-02	.9000	.4327-04	.5195-04	.3393-01	.2631	525.7
79	1525.0	431.00	333.00	.2725-02	.3272-02	.3272-02	.9000	.1183-03	.1421-03	.9268-01	.6127	526.5
79	1525.0	440.00	334.00	.6919-02	.8310-02	.8310-02	.9000	.3005-03	.3609-03	.2351	1.509	527.4
79	1525.0	493.00	335.00	.6366-02	.7645-02	.7645-02	.9000	.2765-03	.3320-03	.2166	1.679	526.4
79	1545.0	434.00	338.00	.2122-02	.2549-02	.2549-02	.9000	.9217-04	.1107-03	.7218-01	.6008	526.6
79	1545.0	443.00	339.00	.6184-02	.7428-02	.7428-02	.9000	.2686-03	.3226-03	.2101	1.210	527.4



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2549

OH84B 60-0 OMS POD

(R4US14)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
132	3.694	8.000	35 03	.6883-03	854.1	1351.	97.87	.8749-01	3.919	3880.	.2413-02	.7876-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
132	.4914-01	.2106-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
132	1325.0	428.60	298.00	.1806-02	.2167-02	.2167-02	.9000	.8877-04	.1065-03	.7200-01	.5359	539.6
132	1325.0	489.20	299.00	.1395-01	.1675-01	.1675-01	.9000	.6858-03	.8230-03	.5556	3.758	540.5
132	1325.0	506.70	301.00	.3231-01	.3880-01	.3880-01	.9000	.1588-02	.1907-02	1.282	10.21	543.1
132	1325.0	511.30	300.00	.4189-01	.5035-01	.5035-01	.9000	.2058-02	.2474-02	1.653	12.26	547.4
132	1350.0	440.40	302.00	.5626-02	.6749-02	.6749-02	.9000	.2765-03	.3317-03	.2244	2.088	539.0
132	1350.0	458.60	303.00	.1682-01	.2020-01	.2020-01	.9000	.8267-03	.9926-03	.6681	4.965	542.5
132	1350.0	498.50	304.00	.1212-01	.1454-01	.1454-01	.9000	.5958-03	.7143-03	.4851	3.390	536.5
132	1350.0	515.50	306.00	.1874-01	.2248-01	.2248-01	.9000	.9208-03	.1105-02	.7473	5.384	539.1
132	1350.0	524.40	305.00	.1084-01	.1300-01	.1300-01	.9000	.5328-03	.6386-03	.4344	3.352	535.4
132	1375.0	421.60	308.00	.1947-02	.2338-02	.2338-02	.9000	.9570-04	.1149-03	.7739-01	1.079	542.0
132	1375.0	440.00	309.00	.6939-02	.8324-02	.8324-02	.9000	.3410-03	.4091-03	.2768	2.687	539.1
132	1375.0	460.00	310.00	.3140-01	.3771-01	.3771-01	.9000	.1543-02	.1853-02	1.246	7.936	543.1
132	1375.0	503.40	311.00	.9584-02	.1148-01	.1148-01	.9000	.4710-03	.5643-03	.3847	3.077	533.9
132	1375.0	531.00	312.00	.7204-02	.8629-02	.8629-02	.9000	.3540-03	.4240-03	.2897	2.094	532.4
132	1400.0	523.40	313.00	.9246-02	.1108-01	.1108-01	.9000	.4544-03	.5445-03	.3710	3.076	534.3
132	1425.0	415.10	315.00	.3602-02	.4322-02	.4322-02	.9000	.1770-03	.2124-03	.1436	1.034	539.7
132	1425.0	437.70	316.00	.6368-02	.7633-02	.7633-02	.9000	.3129-03	.3751-03	.2549	1.901	536.0
132	1425.0	466.30	317.00	.1677-01	.2010-01	.2010-01	.9000	.8249-03	.9875-03	.6716	3.954	535.5
132	1425.0	508.60	318.00	.7885-02	.9446-02	.9446-02	.9000	.3875-03	.4642-03	.3169	2.629	533.0
132	1425.0	536.50	319.00	.6051-02	.7246-02	.7246-02	.9000	.2973-03	.3561-03	.2435	1.820	531.7
132	1450.0	418.20	320.00	.2519-02	.3021-02	.3021-02	.9000	.1238-03	.1485-03	1.006	.9771	538.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2550

OH84B 60-0 OMS POD

(R4US14)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
132	1450.0	436.00	321.00	.5663-02	.6788-02	.6788-02	.9000	.2783-03	.3336-03	.2269	1.750	535.5
132	1450.0	468.20	322.00	.1108-01	.1327-01	.1327-01	.9000	.5444-03	.6523-03	.4443	3.014	534.4
132	1450.0	511.10	323.00	.6450-02	.7723-02	.7723-02	.9000	.3169-03	.3795-03	.2596	2.328	531.7
132	1450.0	526.60	325.00	.5183-02	.6206-02	.6206-02	.9000	.2547-03	.3050-03	.2085	1.731	531.8
132	1500.0	437.00	327.00	.4424-02	.5297-02	.5297-02	.9000	.2174-03	.2603-03	.1781	1.377	531.4
132	1500.0	470.40	328.00	.9049-02	.1083-01	.1083-01	.9000	.4447-03	.5324-03	.3645	2.271	531.0
132	1500.0	514.00	329.00	.5896-02	.7058-02	.7058-02	.9000	.2898-03	.3469-03	.2378	1.721	530.1
132	1500.0	532.30	331.00	.2429-02	.2906-02	.2906-02	.9000	.1194-03	.1428-03	.9840-01	.6505	526.5
132	1500.0	539.40	330.00	.3171-02	.3794-02	.3794-02	.9000	.1558-03	.1864-03	.1282	.9285	528.2
132	1525.0	424.00	332.00	.1089-02	.1304-02	.1304-02	.9000	.5354-04	.6406-04	.4401-01	.3408	528.6
132	1525.0	431.00	333.00	.2916-02	.3491-02	.3491-02	.9000	.1433-03	.1715-03	.1177	.7766	529.7
132	1525.0	440.00	334.00	.7035-02	.8423-02	.8423-02	.9000	.3457-03	.4139-03	.2834	1.816	530.9
132	1525.0	493.00	335.00	.7525-02	.9009-02	.9009-02	.9000	.3698-03	.4427-03	.3032	2.345	530.7
132	1545.0	434.00	338.00	.2426-02	.2903-02	.2903-02	.9000	.1192-03	.1427-03	.9794-01	.8143	529.1
132	1545.0	443.00	339.00	.5993-02	.7173-02	.7173-02	.9000	.2945-03	.3525-03	.2417	1.391	529.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2551

OH84B 60-0 OMS POD

(R4U515)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
201	.4945	7.900	39.95	-10.05	100.2	1266	93.88	.1114-01	.4867	3752.	.3203-03	.7554-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
201	.1712-01	.5741-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
201	1325.0	428.60	298.00	.1218-01	.1471-01	.1471-01	.9000	.2085-03	.2518-03	.1535	1.148	529.7
201	1325.0	489.20	299.00	.7893-01	.9568-01	.9568-01	.9000	.1352-02	.1638-02	.9773	6.603	542.5
201	1325.0	506.70	301.00	.8442-02	.1019-01	.1019-01	.9000	.1446-03	.1745-03	.1065	.8537	529.0
201	1325.0	511.30	300.00	.3564-01	.4309-01	.4309-01	.9000	.6102-03	.7378-03	.4465	3.333	533.9
201	1350.0	440.40	302.00	.3381-01	.4087-01	.4087-01	.9000	.5788-03	.6999-03	.4237	3.953	533.8
201	1350.0	458.60	303.00	.1330	.1616	.1616	.9000	.2278-02	.2767-02	1.628	12.05	550.8
201	1350.0	498.50	304.00	.4926-01	.5961-01	.5961-01	.9000	.8435-03	.1021-02	.6148	4.296	536.8
201	1350.0	515.50	306.00	.5377-02	.6493-02	.6493-02	.9000	.9207-04	.1112-03	.6779-01	.4908	529.4
201	1350.0	524.40	305.00	.2034-01	.2459-01	.2459-01	.9000	.3484-03	.4210-03	.2554	1.974	532.5
201	1375.0	421.60	308.00	.6121-02	.7394-02	.7394-02	.9000	.1048-03	.1266-03	.7705-01	1.080	530.5
201	1375.0	440.00	309.00	.2958-01	.3577-01	.3577-01	.9000	.5064-03	.6125-03	.3702	3.603	534.6
201	1375.0	460.00	310.00	.1310	.1590	.1590	.9000	.2243-02	.2723-02	1.608	10.21	548.5
201	1375.0	503.40	311.00	.1905-01	.2303-01	.2303-01	.9000	.3262-03	.3943-03	.2391	1.913	532.7
201	1375.0	531.00	312.00	.1163-01	.1406-01	.1406-01	.9000	.1992-03	.2407-03	.1464	1.059	531.0
201	1400.0	523.40	313.00	.4904-02	.5923-02	.5923-02	.9000	.8398-04	.1014-03	.6183-01	.5140	529.4
201	1425.0	415.10	315.00	.8811-02	.1064-01	.1064-01	.9000	.1509-03	.1822-03	.1109	.8029	530.3
201	1425.0	437.70	316.00	.1977-01	.2389-01	.2389-01	.9000	.3386-03	.4090-03	.2487	1.859	531.1
201	1425.0	466.30	317.00	.6557-01	.7938-01	.7938-01	.9000	.1123-02	.1359-02	.8171	4.805	538.0
201	1425.0	508.60	318.00	.9963-02	.1204-01	.1204-01	.9000	.1706-03	.2061-03	.1252	1.040	531.6
201	1425.0	536.50	319.00	.6904-02	.8339-02	.8339-02	.9000	.1182-03	.1428-03	.8694-01	.6501	530.3
201	1450.0	418.20	320.00	.7449-02	.8999-02	.8999-02	.9000	.1276-03	.1541-03	.9376-01	9145	530.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2552

OH84B 60-0 OMS POD

(R4US15)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
201	1450 0	436.00	321.00	.1417-01	.1712-01	.1712-01	.9000	.2426-03	.2931-03	.1780	1.376	531.8
201	1450.0	468 20	322.00	.4179-01	.5058-01	.5058-01	.9000	.7156-03	.8660-03	.5215	3.534	536.9
201	1450.0	511.10	323.00	.8860-02	.1071-01	.1071-01	.9000	.1517-03	.1833-03	.1113	.9982	531.9
201	1450 0	526 60	325.00	.7054-02	.8523-02	.8523-02	.9000	.1208-03	.1459-03	.8870-01	.7366	531.3
201	1500.0	437 00	327.00	.1343-01	.1623-01	.1623-01	.9000	.2300-03	.2779-03	.1687	1.304	532.1
201	1500.0	470 40	328 00	.2853-01	.3449-01	.3449-01	.9000	.4885-03	.5906-03	.3576	2.225	533.6
201	1500.0	514 00	329.00	.8123-02	.9815-02	.9815-02	.9000	.1391-03	.1681-03	.1021	.7383	531.7
201	1500 0	532.30	331.00	.5122-02	.6185-02	.6185-02	.9000	.8771-04	.1059-03	.6459-01	.4264	529 2
201	1500 0	539.40	330 00	.3371-02	.4072-02	.4072-02	.9000	.5772-04	.6972-04	.4246-01	.3073	530.2
201	1525.0	424.00	332.00	.4844-02	.5852-02	.5852-02	.9000	.8294-04	.1002-03	.6095-01	.4713	530.9
201	1525 0	431.00	333.00	.1216-01	.1469-01	.1469-01	.9000	.2082-03	.2516-03	.1528	1 007	532.0
201	1525 0	440 00	334 00	.2191-01	.2648-01	.2648-01	.9000	.3752-03	.4535-03	.2748	1.759	533.1
201	1525 0	493 00	335.00	.2763-01	.3343-01	.3343-01	.9000	.4731-03	.5724-03	.3452	2.663	536.0
201	1545 0	434 00	338.00	.1094-01	.1322-01	.1322-01	.9000	.1874-03	.2264-03	.1375	1 142	531.7
201	1545.0	443 00	339.00	.2148-01	.2596-01	.2596-01	.9000	.3677-03	.4445-03	.2695	1.548	532.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2553

OH84B 60-0 OMS POD

(R4U515)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
188	1.010	7.940	39 95	-10 05	204 4	1253.	92 05	.2199-01	.9703	3734.	.6447-03	.7407-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
188	.2413-01	.4042-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
188	1325 0	428.60	298 00	.1991-01	.2410-01	.2410-01	.9000	.4806-03	.5816-03	.3467	2.591	531.3
188	1325.0	489.20	299 00	.1292	.1573	.1573	.9000	.3118-02	.3795-02	2.190	14.74	550.3
188	1325.0	506.70	301 00	.1284-01	.1551-01	.1551-01	.9000	.3098-03	.3743-03	.2252	1.809	525.8
188	1325 0	511.30	300 00	.6697-01	.8113-01	.8113-01	.9000	.1616-02	.1958-02	1.160	8.652	535.1
188	1350.0	440 40	302 00	.8453-01	.1027	.1027	.9000	.2040-02	.2477-02	1.447	13.44	543.2
188	1350 0	458.60	303 00	.1204	.1465	.1465	.9000	.2905-02	.3535-02	2.045	15.15	548.8
188	1350 0	498 50	304 00	.4608-01	.5579-01	.5579-01	.9000	.1112-02	.1346-02	.8004	5.604	532.9
188	1350 0	515 50	306 00	.8761-02	.1058-01	.1058-01	.9000	.2114-03	.2554-03	.1538	1.116	525.3
188	1350 0	524.40	305 00	.2120-01	.2563-01	.2563-01	.9000	.5116-03	.6185-03	.3708	2.872	527.9
188	1375.0	421 60	308 00	.9199-02	.1113-01	.1113-01	.9000	.2220-03	.2687-03	.1601	2.244	531.4
188	1375 0	440 00	309 00	.8148-01	.9900-01	.9900-01	.9000	.1966-02	.2389-02	1.392	13.48	544.7
188	1375.0	460 00	310 00	.1015	.1233	.1233	.9000	.2450-02	.2974-02	1.741	11.09	542.2
188	1375 0	503.40	311 00	.2194-01	.2653-01	.2653-01	.9000	.5294-03	.6401-03	.3835	3.075	528.4
188	1375.0	531.00	312 00	.1026-01	.1239-01	.1239-01	.9000	.2475-03	.2990-03	.1801	1.307	525.0
188	1400.0	523.40	313 00	.7135-02	.8618-02	.8618-02	.9000	.1722-03	.2080-03	.1254	1.045	524.5
188	1425 0	415.10	315 00	.1928-01	.2332-01	.2332-01	.9000	.4652-03	.5629-03	.3358	2.429	530.8
188	1425.0	437 70	316 00	.2693-01	.3259-01	.3259-01	.9000	.6489-03	.7864-03	.4693	3.509	530.7
188	1425 0	466 30	317 00	.6423-01	.7779-01	.7779-01	.9000	.1550-02	.1877-02	1.114	6.564	534.0
188	1425 0	508 60	318 00	.1062-01	.1283-01	.1283-01	.9000	.2563-03	.3097-03	.1864	1.552	525.7
188	1425 0	536.50	319 00	.6076-02	.7337-02	.7337-02	.9000	.1466-03	.1771-03	.1068	.8015	524.0
188	1450 0	418 20	320 00	.1289-01	.1558-01	.1558-01	.9000	.3110-03	.3761-03	.2250	2.196	529.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2554

OH84B 60-0 OMS POD

(R4US15)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
188	1450.0	436.00	321.00	.1527-01	.1846-01	.1846-01	.9000	.3685-03	.4455-03	.2671	2.069	527.8
188	1450 0	468.20	322.00	.3989-01	.4827-01	.4827-01	.9000	.9626-03	.1165-02	.6942	4.717	531.5
188	1450 0	511.10	323.00	.1028-01	.1242-01	.1242-01	.9000	.2480-03	.2996-03	.1804	1.623	525.2
188	1450 0	526 60	325.00	.9970-02	.1205-01	.1205-01	.9000	.2406-03	.2907-03	.1749	1.456	525.8
188	1500.0	437.00	327.00	.1081-01	.1306-01	.1306-01	.9000	.2610-03	.3152-03	.1899	1.473	525.0
188	1500 0	470.40	328.00	.1931-01	.2333-01	.2333-01	.9000	.4661-03	.5631-03	.3391	2.118	525.2
188	1500 0	514 00	329.00	.8591-02	.1037-01	.1037 01	.9000	.2073-03	.2503-03	.1512	1.098	523.3
188	1500 0	532.30	331.00	.7417-02	.8951-02	.8951-02	.9000	.1790-03	.2160-03	.1308	.8668	521.9
188	1500 0	539 40	330 00	.3214-02	.3878-02	.3878-02	.9000	.7756-04	.9359-04	.5670-01	.4122	521.6
188	1525 0	424.00	332.00	.4701-02	.5675-02	.5675-02	.9000	.1134-03	.1370-03	.8274-01	.6424	523.3
188	1525 0	431 00	333.00	.1193-01	.1440-01	.1440-01	.9000	.2878-03	.3476-03	.2096	1.388	524.2
188	1525 0	440 00	334 00	.2312-01	.2794-01	.2794-01	.9000	.5580-03	.6742-03	.4055	2.605	526.0
188	1525 0	493.00	335.00	.2103-01	.2542-01	.2542-01	.9000	.5076-03	.6134-03	.3695	2.856	526.7
188	1545.0	434.00	338.00	.1013-01	.1223-01	.1223-01	.9000	.2445-03	.2952-03	.1782	1.486	523.7
188	1545.0	443 00	339.00	.2487-01	.3005-01	.3005-01	.9000	.6003-03	.7252-03	.4365	2.517	525.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2555

OH84B 60-0 OMS POD

(R4US15)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -10.00 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
170	1.999	7.980	39 98	-10.08	434.3	1302	94.76	.4522-01	2.016	3808	.1288-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
170	.3501-01	.2872-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
170	1325.0	428.60	298.00	.4958-01	.6000-01	.6000-01	.9000	.1736-02	.2101-02	1.302	9.631	551.8
170	1325.0	489.20	299.00	.1174	.1427	.1427	.9000	.4111-02	.4997-02	3.016	20.12	567.9
170	1325.0	506.70	301.00	.1468-01	.1768-01	.1768-01	.9000	.5140-03	.6191-03	.3943	3.152	534.6
170	1325.0	511.30	300.00	.7733-01	.9361-01	.9361-01	.9000	.2708-02	.3278-02	2.027	14.98	553.2
170	1350.0	440.40	302.00	.4949-01	.5990-01	.5990-01	.9000	.1733-02	.2097-02	1.298	12.00	552.5
170	1350.0	458.60	303.00	.1629	.1989	.1939	.9000	.5702-02	.6965-02	4.094	29.80	583.8
170	1350.0	498.50	304.00	.4133-01	.4990-01	.4990-01	.9000	.1447-02	.1747-02	1.097	7.636	543.8
170	1350.0	515.50	306.00	.1065-01	.1283-01	.1283-01	.9000	.3730-03	.4491-03	.2866	2.070	533.4
170	1350.0	524.40	305.00	.1872-01	.2256-01	.2256-01	.9000	.6555-03	.7898-03	.5021	3.873	535.8
170	1375.0	421.60	308.00	.9535-02	.1152-01	.1152-01	.9000	.3339-03	.4032-03	.2528	3.519	544.5
170	1375.0	440.00	309.00	.2878-01	.3477-01	.3477-01	.9000	.1008-02	.1217-02	.7614	7.368	546.0
170	1375.0	460.00	310.00	.1168	.1418	.1418	.9000	.4088-02	.4966-02	3.013	18.98	564.8
170	1375.0	503.40	311.00	.2156-01	.2598-01	.2598-01	.9000	.7548-03	.9096-03	.5770	4.607	537.1
170	1375.0	531.00	312.00	.9757-02	.1174-01	.1174-01	.9000	.3416-03	.4112-03	.2627	1.899	532.7
170	1400.0	523.40	313.00	.8936-02	.1076-01	.1076-01	.9000	.3129-03	.3766-03	.2406	1.997	532.7
170	1425.0	415.10	315.00	.1059-01	.1277-01	.1277-01	.9000	.3708-03	.4471-03	.2825	2.035	539.6
170	1425.0	437.70	316.00	.1540-01	.1856-01	.1856-01	.9000	.5391-03	.6497-03	.4120	3.070	537.4
170	1425.0	466.30	317.00	.6836-01	.8260-01	.8260-01	.9000	.2394-02	.2892-02	1.807	10.58	546.7
170	1425.0	508.60	318.00	.1012-01	.1218-01	.1218-01	.9000	.3543-03	.4265-03	.2725	2.261	532.7
170	1425.0	536.50	319.00	.5509-02	.6628-02	.6628-02	.9000	.1929-03	.2321-03	.1488	1.113	530.2
170	1450.0	418.20	320.00	.9127-02	.1100-01	.1100-01	.9000	.3196-03	.3853-03	.2438	2.368	538.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2556

OH84B 60-0 OMS POD

(R4US15)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
170	1450.0	436.00	321.00	.1556-01	.1875-01	.1875-01	.9000	.5449-03	.6567-03	.4165	3.211	537.2
170	1450 0	468.20	322.00	.5603-01	.6769-01	.6769-01	.9000	.1962-02	.2370-02	1.482	9.997	546.1
170	1450.0	511.10	323.00	.8196-02	.9863-02	.9863-02	.9000	.2870-03	.3454-03	.2210	1.982	531.6
170	1450.0	526.60	325.00	.1427-01	.1719-01	.1719-01	.9000	.4998-03	.6019-03	.3835	3.180	534.3
170	1500 0	437 00	327.00	.1857-01	.2237-01	.2237-01	.9000	.6502-03	.7833-03	.4980	3.842	535.7
170	1500.0	470 40	328.00	.3347-01	.4034-01	.4034-01	.9000	.1172-02	.1413-02	.8959	5 563	537.3
170	1500.0	514.00	329 00	.6624-02	.7967-02	.7967-02	.9000	.2319-03	.2790-03	.1791	1.297	529.5
170	1500.0	532 30	331 00	.9709-02	.1167-01	.1167-01	.9000	.3399-03	.4087-03	.2629	1.737	528.2
170	1500.0	539 40	330.00	.3571-02	.4293-02	.4293-02	.9000	.1250-03	.1503-03	.9678-01	.7013	527 7
170	1525 0	424.00	332 00	.5201-02	.6256-02	.6256-02	.9000	.1821-03	.2190-03	1406	1.088	529.7
170	1525.0	431.00	333 00	.1420-01	.1708-01	.1708-01	.9000	.4970-03	.5982-03	3826	2.522	531.9
170	1525 0	440.00	334 00	.2960-01	.3567-01	.3567-01	.9000	.1037-02	.1249-02	.7935	5.071	536.2
170	1525.0	493.00	335 00	.2625-01	.3164-01	.3164-01	.9000	.9191-03	.1108-02	.7024	5.414	537.5
170	1545 0	434.00	338.00	.9346-02	.1124-01	.1124-01	.9000	.3272-03	.3937-03	.2523	2.096	530 6
170	1545 0	443.00	339 00	.2465-01	.2969-01	.2969-01	.9000	.8633-03	.1040-02	.6626	3.804	534.2



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2557

OH84B 60-0 OMS POD

(R4US15)

1S POD

# PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -10.00 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN JMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
98	2.982	7.990	40.02	-10.11	669.7	1328.	96.43	.6916-01	3.091	3846.	.1936-02	.7760-07
RUN JMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175										
98	.4351-01	.2347-01										

## \*\*\*TEST DATA\*\*\*

RUN JMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
98	1325 0	428 60	298.00	.6187-01	.7484-01	.7484-01	.9000	.2692-02	.3256-02	2 063	15.19	561.4
98	1325 0	489 20	299 00	.1168	.1418	.1418	.9000	.5080-02	.6170-02	3 817	25.36	576.2
98	1325.0	506.70	301 00	.1670-01	.2008-01	.2008-01	.9000	.7268-03	.8736-03	.5742	4.584	537.6
98	1325.0	511 30	300.00	.8549-01	.1034	.1034	.9000	.3719-02	.4498-02	2.852	21.00	560.9
98	1350.0	440 40	302.00	.6478-01	.7842-01	.7842-01	.9000	.2818-02	.3412-02	2.150	19.75	564.7
98	1350 0	458 60	303.00	.1447	.1765	.1765	.9000	.6298-02	.7680-02	4.646	33.72	589.9
98	1350 0	498 50	304 00	.4021-01	.4846-01	.4846-01	.9000	.1749-02	.2108-02	1.364	9.479	547.9
98	1350 0	515 50	306.00	.1176-01	.1414-01	.1414-01	.9000	.5118-03	.6150-03	.4050	2 922	536.3
98	1350 0	524 40	305.00	.1740-01	.2092-01	.2092-01	.9000	.7572-03	.9104-03	.5976	4.604	538.4
98	1375.0	421.60	308.00	.1363-01	.1644-01	.1644-01	.9000	.5929-03	.7154-03	.4598	6.377	552.2
98	1375.0	440 00	309 00	.3355-01	.4049-01	.4049-01	.9000	.1460-02	.1762-02	1.131	10 90	553.0
98	1375 0	460.00	310.00	.1058	.1283	.1283	.9000	.4604-02	.5582-02	3 489	21 92	569.9
98	1375.0	503.40	311 00	.2002-01	.2408-01	.2408-01	.9000	.8709-03	.1048-02	.6859	5.468	540.1
98	1375 0	531.00	312 00	.9217-02	.1107-01	.1107-01	.9000	.4010-03	.4815-03	.3184	2.300	533.7
98	1400.0	523.40	313 00	.1238-01	.1487-01	.1487-01	.9000	.5384-03	.6470-03	.4261	3.530	536.3
98	1425.0	415.10	315 00	.9560-02	.1151-01	.1151-01	.9000	.4159-03	.5007-03	.3262	2.345	543.4
98	1425 0	437.70	316 00	.1777-01	.2138-01	.2138-01	.9000	.7732-03	.9302-03	.6081	4.522	541.2
98	1425 0	466.30	317 00	.6248-01	.7535-01	.7535-01	.9000	.2719-02	.3278-02	2 113	12 35	550.3
98	1425 0	508 60	318 00	.1050-01	.1262-01	.1262-01	.9000	.4569-03	.5489-03	.3620	3 000	535 4
98	1425.0	536.50	319 00	.6107-02	.7331-02	.7331-02	.9000	.2657-03	.3189-03	.2113	1 579	532.3
98	1450 0	418 20	320 00	.6399-02	.7699-02	.7699-02	.9000	.2784-03	.3350-03	.2189	2.123	541.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2558

## OH84B 60-0 OMS POD

(R4US16)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
98	1450.0	436.00	321.00	.1344-01	.1617-01	.1617-01	.9000	.5848-03	.7034-03	.4606	3.546	540.1
98	1450.0	468.20	322.00	.5193-01	.6261-01	.6261-01	.9000	.2259-02	.2724-02	1.757	11.83	549.9
98	1450.0	511.10	323.00	.7865-02	.9444-02	.9444-02	.9000	.3422-03	.4109-03	.2718	2.435	533.4
98	1450.0	526.60	325.00	.9778-02	.1174-01	.1174-01	.9000	.4254-03	.5108-03	.3378	2.802	533.7
98	1500.0	437.00	327.00	.1845-01	.2219-01	.2219-01	.9000	.8029-03	.9652-03	.6338	4.883	538.3
98	1500.0	470.40	328.00	.3341-01	.4019-01	.4019-01	.9000	.1454-02	.1749-02	1.144	7.093	540.6
98	1500.0	514.00	329.00	.6202-02	.7443-02	.7443-02	.9000	.2699-03	.3238-03	.2149	1.555	531.2
98	1500.0	532.30	331.00	.7579-02	.9091-02	.9091-02	.9000	.3298-03	.3955-03	.2633	1.739	529.1
98	1500.0	539.40	330.00	.4856-02	.5824-02	.5824-02	.9000	.2113-03	.2534-03	.1687	1.221	529.3
98	1525.0	424.00	332.00	.5981-02	.7180-02	.7180-02	.9000	.2602-03	.3124-03	.2070	1.600	532.3
98	1525.0	431.00	333.00	.1614-01	.1939-01	.1939-01	.9000	.7023-03	.8438-03	.5562	3.660	535.7
98	1525.0	440.00	334.00	.3277-01	.3943-01	.3943-01	.9000	.1426-02	.1715-02	1.122	7.150	541.1
98	1525.0	493.00	335.00	.2304-01	.2770-01	.2770-01	.9000	.1002-02	.1205-02	.7914	6.097	538.3
98	1545.0	434.00	338.00	.1121-01	.1346-01	.1346-01	.9000	.4876-03	.5855-03	.3872	3.211	533.7
98	1545.0	443.00	339.00	.2881-01	.3463-01	.3463-01	.9000	.1253-02	.1507-02	.9897	5.671	538.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2559

OH84B 60-0 OMS POD

(R4US17)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
198	.4952	7.900	39 96	-3.985	99.19	1256.	93.14	.1102-01	4816	3737.	.3195-03	.7495-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
198	.1701-01	.5744-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
198	1325.0	428.60	298.00	.6623-03	.8004-03	.8004-03	.9000	.1127-04	.1361-04	.8199-02	.6139-01	527.9
198	1325.0	489.20	299.00	.4680-02	.5656-02	.5656-02	.9000	.7961-04	.9621-04	.5793-01	.3943	528.0
198	1325.0	506.70	301.00	.2971-02	.3591-02	.3591-02	.9000	.5054-04	.6107-04	.3680-01	.2952	527.6
198	1325.0	511.30	300.00	.3286-02	.3972-02	.3972-02	.9000	.5588-04	.6755-04	.4062-01	.3040	528.8
198	1350.0	440.40	302.00	.2110-02	.2550-02	.2550-02	.9000	.3588-04	.4338-04	.2608-01	.2440	528.8
198	1350.0	458.60	303.00	.9036-02	.1093-01	.1093-01	.9000	.1537-03	.1859-03	.1115	.8338	530.2
198	1350.0	498.50	304.00	.8763-02	.1059-01	.1059-01	.9000	.1490-03	.1802-03	.1083	.7593	529.3
198	1350.0	515.50	306.00	.5870-02	.7096-02	.7096-02	.9000	.9984-04	.1207-03	.7256-01	.5255	528.9
198	1350.0	524.40	305.00	.4253-02	.5141-02	.5141-02	.9000	.7234-04	.8745-04	.5258-01	.4071	528.8
198	1375.0	421.60	308.00	.1049-02	.1268-02	.1268-02	.9000	.1784-04	.2157-04	.1295-01	.1816	529.8
198	1375.0	440.00	309.00	.3393-02	.4103-02	.4103-02	.9000	.5771-04	.6978-04	.4187-01	.4084	530.1
198	1375.0	460.00	310.00	.1446-01	.1749-01	.1749-01	.9000	.2459-03	.2975-03	.1784	.1.143	530.5
198	1375.0	503.40	311.00	.8982-02	.1086-01	.1086-01	.9000	.1528-03	.1847-03	.1109	.8893	529.4
198	1375.0	531.00	312.00	.3568-02	.4312-02	.4312-02	.9000	.6068-04	.7334-04	.4415-01	.3199	528.1
198	1400.0	523.40	313.00	.4882-02	.5900-02	.5900-02	.9000	.8304-04	.1004-03	.6042-01	.5026	528.1
198	1425.0	415.10	315.00	.2309-02	.2791-02	.2791-02	.9000	.3927-04	.4748-04	.2853-01	.2066	529.1
198	1425.0	437.70	316.00	.5621-02	.6796-02	.6796-02	.9000	.9560-04	.1156-03	.6942-01	.5193	529.6
198	1425.0	466.30	317.00	.1423-01	.1721-01	.1721-01	.9000	.2421-03	.2927-03	.1758	.1.038	529.5
198	1425.0	508.60	318.00	.7796-02	.9426-02	.9426-02	.9000	.1326-03	.1603-03	.9632-01	.8007	529.3
198	1425.0	536.50	319.00	.2811-02	.3396-02	.3396-02	.9000	.4781-04	.5777-04	.3483-01	.2609	527.2
198	1450.0	418.20	320.00	.1259-02	.1522-02	.1522-02	.9000	.2142-04	.2589-04	.1557-01	.1520	528.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US17)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
198	1450.0	436.00	321.00	.3985-02	.4817-02	.4817-02	.9000	.6778-04	.8193-04	.4926-01	.3814	528.8
198	1450.0	468.20	322.00	.1208-01	.1460-01	.1460-01	.9000	.2054-03	.2483-03	.1493	1.015	529.0
198	1450.0	511.10	323.00	.6677-02	.8070-02	.8070-02	.9000	.1136-03	.1373-03	.8258-01	.7417	528.5
198	1450.0	526.60	325.00	.2848-02	.3442-02	.3442-02	.9000	.4844-04	.5855-04	.3526-01	.2933	527.9
198	1500.0	437.00	327.00	.2830-02	.3418-02	.3418-02	.9000	.4813-04	.5815-04	.3510-01	.2721	526.4
198	1500.0	470.40	328.00	.7464-02	.9017-02	.9017-02	.9000	.1270-03	.1534-03	.9252-01	.5776	526.8
198	1500.0	514.00	329.00	.3831-02	.4629-02	.4629-02	.9000	.6517-04	.7874-04	.4748-01	.3442	527.1
193	1500.0	532.30	331.00	.2193-02	.2648-02	.2648-02	.9000	.3729-04	.4504-04	.2723-01	.1801	525.7
198	1500.0	539.40	330.00	.2399-02	.2898-02	.2898-02	.9000	.4080-04	.4930-04	.2973-01	.2155	527.0
198	1525.0	424.00	332.00	.5698-03	.6883-03	.6883-03	.9000	.9692-05	.1171-04	.7070-02	.5480-01	526.2
198	1525.0	431.00	333.00	.1597-02	.1929-02	.1929-02	.9000	.2717-04	.3282-04	.1982-01	.1310	526.2
198	1525.0	440.00	334.00	.3805-02	.4596-02	.4596-02	.9000	.6472-04	.7818-04	.4721-01	.3032	526.2
198	1525.0	493.00	335.00	.6589-02	.7962-02	.7962-02	.9000	.1121-03	.1354-03	.8162-01	.6324	527.4
198	1545.0	434.00	338.00	.5676-03	.6855-03	.6855-03	.9000	.9654-05	.1166-04	.7045-02	.5867-01	525.9
198	1545.0	443.00	339.00	.3305-02	.3991-02	.3991-02	.9000	.5621-04	.6789-04	.4102-01	.2365	526.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2561

OH84B 60-0 OMS POD

(R4US17)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC. /FT2
185	.9852	7.940	39 97	-3.981	202.7	1267.	93.08	.2180-01	9622	3755.	.6323-03	.7490-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
185	.2408-01	.4087-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/PREF R=1.0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
185	1325.0	428 60	298.00	.8587-03	.1037-02	1037-02	.9000	.2068-04	.2496-04	.1527-01	.1143	528.1
185	1325.0	489.20	299.00	.3336-02	.4024-02	.4024-02	.9000	.8032-04	.9689-04	.5947-01	.4051	526.2
185	1325.0	506.70	301.00	.9086-02	.1096-01	1096-01	.9000	.2188-03	.2640-03	.1618	1.298	527.2
185	1325.0	511.30	300.00	.7842-02	.9463-02	.9463-02	.9000	.1888-03	.2279-03	.1396	1.046	527.3
185	1350.0	440 40	302.00	.2323-02	.2803-02	.2803-02	.9000	.5593-04	.6750-04	.4134-01	.3869	527.6
185	1350.0	458 60	303.00	.8286-02	.1000-01	1000-01	.9000	.1995-03	.2408-03	.1474	1.104	527.7
185	1350.0	498.50	304.00	.4446-02	.5363-02	.5363-02	.9000	.1071-03	.1291-03	.7931-01	.5573	525.9
185	1350.0	515.50	306.00	.1155-01	.1394-01	.1394-01	.9000	.2781-03	.3357-03	.2055	1.489	527.8
185	1350.0	524.40	305.00	.6604-02	.7967-02	7967-02	.9000	.1590-03	.1918-03	.1177	.9121	526.6
185	1375.0	421.60	308.00	.1758-02	.2123-02	.2123-02	.9000	.4233-04	.5113-04	.3116-01	.4369	530.5
185	1375.0	440.00	309.00	.5984-02	.7224-02	.7224-02	.9000	.1441-03	.1739-03	.1064	1.038	528.6
185	1375.0	460.00	310.00	.3065-01	.3702-01	.3702-01	.9000	.7379-03	.8914-03	.5430	3.479	530.9
185	1375.0	503.40	311.00	.5032-02	.6069-02	.6069-02	.9000	.1212-03	.1461-03	.8983-01	.7216	525.3
185	1375.0	531.00	312.00	.4811-02	.5802-02	.5802-02	.9000	.1158-03	.1397-03	.8590-01	.6232	525.2
185	1400.0	523.40	313.00	.7100-02	.8563-02	.8563-02	.9000	.1709-03	.2062-03	.1267	1.055	525.7
185	1425.0	415.10	315.00	.3212-02	.3878-02	.3878-02	.9000	.7734-04	.9338-04	.5703-01	.4129	529.4
185	1425.0	437.70	316.00	.6686-02	.8070-02	.8070-02	.9000	.1610-03	.1943-03	.1189	.8899	528.2
185	1425.0	466.30	317.00	.2317-01	.2796-01	.2796-01	.9000	.5579-03	.6733-03	.4125	2.439	527.3
185	1425.0	508.60	318.00	.8290-02	.9999-02	.9999-02	.9000	.1995-03	.2408-03	.1479	1.232	525.6
185	1425.0	536.50	319.00	.3056-02	.3684-02	.3684-02	.9000	.7358-04	.8871-04	.5464-01	.4099	524.1
185	1450.0	418.20	320.00	.2404-02	.2902-02	.2902-02	.9000	.5789-04	.6988-04	.4275-01	.4174	528.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 QMS POD

(R4US17)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
185	1450.0	436.00	321 00	.6353-02	.7666-02	.7666-02	.9000	.1530-03	.1846-03	.1131	.8760	527.4
185	1450.0	468.20	322.00	.1920-01	.2317-01	.2317-01	.9000	.4621-03	.5579-03	.3423	2 332	526.5
185	1450.0	511.10	323.00	.8094-02	.9761-02	.9761-02	.9000	.1949-03	.2350-03	.1445	1.301	525 0
185	1450 0	526.60	325.00	.3675-02	.4432-02	.4432-02	.9000	.8848-04	.1067-03	.6561-01	.5466	525.1
185	1500 0	437 00	327 00	.4162-02	.5017-02	.5017-02	.9000	.1002-03	.1208-03	.7445-01	.5778	523.8
185	1500 0	470 40	328 00	.8348-02	.1006-01	.1006-01	.9000	.2010-03	.2423-03	.1493	.9335	523.8
185	1500 0	514 00	329 00	.5839-02	.7039-02	.7039-02	.9000	.1406-03	.1695-03	.1045	.7587	523.5
185	1500 0	532 30	331 00	.1992-02	.2399-02	.2399-02	.9000	.4796-04	.5777-04	.3576-01	.2371	521.0
185	1500 0	539 40	330.00	.2257-02	.2720-02	.2720-02	.9000	.5434-04	.6548-04	.4046-01	.2940	522 2
185	1525 0	424 00	332 00	.1125-02	.1356-02	.1356-02	.9000	.2709-04	.3265-04	.2016-01	.1565	522.7
185	1525 0	431.00	333 00	.3243-02	.3909-02	.3909-02	.9000	.7808-04	.9411-04	.5808-01	.3846	522.9
185	1525.0	440 00	334.00	.7170-02	.8643-02	.8643-02	.9000	.1726-03	.2081-03	.1283	.8255	523 3
185	1525 0	493 00	335.00	.6596-02	.7952-02	.7952-02	.9000	.1588-03	.1915-03	.1180	.9159	523.7
185	1545 0	434.00	338.00	.2221-02	.2677-02	.2677-02	.9000	.5349-04	.6445-04	.3983-01	.3323	522.1
185	1545.0	443.00	339 00	.6842-02	.8245-02	.8245-02	.9000	.1647-03	.1985-03	.1226	.7077	522 7

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2563

OH84B 60-O OMS POD

(R4US17)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
176	1.997	7.980	39.97	-3.999	436.5	1307.	95.13	.4544-01	2.026	3815.	.1289-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
176	3513-01	2871-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
176	1325.0	428 60	298.00	.1920-02	.2311-02	.2311-02	.9000	.6745-04	.8117-04	.5216-01	.3894	533.4
176	1325.0	489.20	299.00	.6380-02	.7675-02	.7675-02	.9000	.2241-03	.2696-03	.1735	1.178	532.3
176	1325.0	506.70	301.00	.1714-01	.2064-01	.2064-01	.9000	.6022-03	.7249-03	.4649	3.717	534.6
176	1325.0	511 30	300.00	.1460-01	.1757-01	.1757-01	.9000	.5128-03	.6172-03	.3963	2.958	533.9
176	1350.0	440.40	302.00	.7892-02	.9499-02	.9499-02	.9000	.2772-03	.3337-03	.2141	1.998	534.2
176	1350.0	458 60	303.00	.2227-01	.2682-01	.2682-01	.9000	.7823-03	.9420-03	.6030	4.496	535.9
176	1350.0	498.50	304.00	.6087-02	.7319-02	.7319-02	.9000	.2138-03	.2571-03	.1659	1.163	530.7
176	1350 0	515.50	306 00	.1592-01	.1916-01	.1916-01	.9000	.5592-03	.6731-03	.4321	3.121	534.0
176	1350.0	524.40	305 00	.9497-02	.1142-01	.1142-01	.9000	.3336-03	.4013-03	.2585	1.998	531.7
176	1375 0	421.60	308 00	.3440-02	.4143-02	.4143-02	.9000	.1208-03	.1455-03	.9304-01	1.300	536.7
176	1375 0	440.00	309 00	.1488-01	.1792-01	.1792-01	.9000	.5227-03	.6295-03	.4027	3.915	536.3
176	1375 0	460.00	310.00	.6970-01	.8416-01	.8416-01	.9000	.2448-02	.2956-02	1.862	11.84	546.3
176	1375 0	503 40	311.00	.7051-02	.8478-02	.8478-02	.9000	.2477-03	.2978-03	.1924	1.542	530.0
176	1375 0	531.00	312 00	.6661-02	.8008-02	.8008-02	.9000	.2340-03	.2813-03	.1818	1.316	529.7
176	1400.0	523.40	313 00	.9545-02	.1148-01	.1148-01	.9000	.3353-03	.4032-03	.2601	2.160	530.9
176	1425 0	415 10	315 00	.5442-02	.6551-02	.6551-02	.9000	.1912-03	.2301-03	.1475	1.065	535.0
176	1425 0	437 70	316 00	.1061-01	.1277-01	.1277-01	.9000	.3727-03	.4485-03	.2883	2.153	533.1
176	1425.0	466 30	317 00	.3696-01	.4450-01	.4450-01	.9000	.1298-02	.1563-02	1.001	5.894	535.6
176	1425 0	508 60	318 00	.8671-02	.1043-01	.1043-01	.9000	.3046-03	.3662-03	.2363	1.963	530.8
176	1425 0	536 50	319 00	.4327-02	.5201-02	.5201-02	.9000	.1520-03	.1827-03	.1182	.8845	529.0
176	1450 0	418 20	320 00	.3625-02	.4363-02	.4363-02	.9000	.1273-03	.1533-03	.9840-01	.9580	534.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US17)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(10) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
176	1450.0	436.00	321 00	8928-02	.1074-01	.1074-01	.9000	.3136-03	.3773-03	.2427	1.875	532.7
176	1450 0	468.20	322.00	.2720-01	.3275-01	.3275-01	.9000	.9556-03	.1150-02	.7376	5.003	534.7
176	1450.0	511 10	323.00	7908-02	.9508-02	.9508-02	.9000	.2778-03	.3340-03	.2157	1.936	530.1
176	1450.0	526 60	325 00	2991-02	.3594-02	.3594-02	.9000	.1050-03	.1262-03	.8179-01	.6804	528 0
176	1500.0	437.00	327.00	.6293-02	.7564-02	.7564-02	.9000	.2211-03	.2657-03	.1720	1.331	528.7
176	1500.0	470 40	328 00	1413-01	.1698-01	.1698-01	.9000	.4962-03	.5965-03	.3858	2.406	529 2
176	1500.0	514 00	329 00	.5698-02	.6846-02	.6846-02	.9000	.2001-03	.2405-03	1560	1 131	527 3
176	1500 0	532 30	331 00	2110-02	.2533-02	.2533-02	.9000	.7412-04	.8898-04	5798-01	.3837	524.4
176	1500 0	539.40	330 00	2359-02	.2833-02	.2833-02	.9000	.8287-04	.9952-04	6471-01	4694	525 8
176	1525.0	424 00	332 00	.1363-02	.1638-02	.1638-02	9000	.4789-04	.5753-04	3734-01	.2893	526 9
176	1525 0	431 00	333 00	.4148-02	.4984-02	.4984-02	9000	.1457-03	.1751-03	1135	7498	527.8
176	1525 0	440.00	334 00	.1004-01	.1206-01	.1206-01	9000	.3526-03	.4237-03	.2744	1.760	528 4
176	1525 0	493 00	335 00	.1182-01	.1421-01	.1421-01	.9000	.4152-03	.4991-03	.3227	2.497	529.4
176	1545 0	434.00	338 00	.2970-02	.3568-02	.3568-02	.9000	.1043-03	.1253-03	.8133-01	.6769	527 1
176	1545 0	443 00	339 00	.9195-02	.1105-01	.1105-01	.9000	.3230-03	.3881-03	2515	1.449	527.9



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2565

OH84B 60-0 OMS POD

(R4US17)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = 0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
97	2.987	7 990	40 01	-4.020	670 8	1328	96 43	.6927-01	3.096	3846.	.1939-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
97	4354-01	2345-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
97	1325.0	428 60	298.00	.2857-02	.3436-02	.3436-02	.9000	.1244-03	.1496-03	.9808-01	.7300	539.4
97	1325.0	489.20	299.00	.1709-01	.2056-01	.2056-01	.9000	.7441-03	.8953-03	.5853	3.957	541.2
97	1325.0	506 70	301.00	.1649-01	.1982-01	.1982-01	.9000	.7180-03	.8632-03	.5668	4.523	538.3
97	1325.0	511.30	300 00	.2293-01	.2759-01	.2759-01	.9000	.9984-03	.1201-02	.7851	5.838	541.3
97	1350.0	440 40	302 00	.6405-02	.7700-02	.7700-02	.9000	.2789-03	.3353-03	.2201	2.049	538.5
97	1350 0	458.60	303 00	.4458-01	.5375-01	.5375-01	.9000	.1941-02	.2340-02	1.511	11.19	549.1
97	1350.0	498.50	304 00	.2496-01	.3003-01	.3003-01	.9000	.1087-02	.1308-02	.8555	5.967	540.6
97	1350 0	515.50	306 00	.1566-01	.1883-01	.1883-01	9000	.6820-03	.8199-03	.5385	3.881	538 2
97	1350.0	524.40	305 00	.1453-01	.1746-01	.1746-01	.9000	.6325-03	.7602-03	5000	3.854	537.2
97	1375.0	421.60	308.00	.2170-02	.2611-02	.2611-02	9000	.9449-04	.1137-03	.7426-01	1 035	541.7
97	1375 0	440 00	309 00	.9155-02	.1101-01	.1101-01	.9000	.3986-03	.4794-03	.3139	3.047	540.1
97	1375.0	460 00	310.00	.5380-01	.6485-01	.6485-01	9000	.2343-02	.2824-02	1 826	11 60	548.2
97	1375 0	503.40	311 00	.1457-01	.1750-01	.1750-01	9000	.6343-03	.7622-03	5020	4 010	536.2
97	1375 0	531 00	312.00	.8593-02	.1032-01	.1032-01	.9000	.3742-03	.4492-03	2973	2.149	533.0
97	1400 0	523 40	313 00	.8646-02	.1038-01	.1038-01	.9000	.3765-03	.4521-03	.2987	2.477	534.3
97	1425 0	415 10	315.00	.5033-02	.6054-02	.6054-02	9000	.2192-03	.2636-03	1725	1.242	540.4
97	1425 0	437.70	316 00	.1078-01	.1295-01	.1295-01	9000	.4693-03	.5641-03	.3706	2 760	538 0
97	1425 0	466 30	317.00	.3181-01	.3826-01	.3826-01	.9000	.1385-02	.1666-02	1.091	6 409	540 1
97	1425.0	508 60	318 00	.8176-02	.9818-02	.9818-02	.9000	.3560-03	.4275-03	.2826	2 344	533 8
97	1425 0	536.50	319 00	.4809-02	.5772-02	.5772-02	9000	.2094-03	.2513-03	1667	1 245	531 7
97	1450.0	418 20	320 00	.3687-02	.4433-02	.4433-02	.9000	.1605-03	.1930-03	1267	1 230	538.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US17)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
97	1450.0	436 00	321.00	.8697-02	.1045-01	.1045-01	.9000	.3787-03	.4551-03	.2995	2.309	536.8
97	1450 0	468.20	322.00	.2580-01	.3103-01	.3103-01	.9000	.1123-02	.1351-02	.8856	5.993	539.4
97	1450.0	511 10	323.00	.7406-02	.8890-02	.8890-02	.9000	.3225-03	.3871-03	.2563	2.298	532.7
97	1450 0	526 60	325.00	.4154-02	.4985-02	.4985-02	9000	.1809-03	.2170-03	.1441	1.196	531.2
97	1500.0	437 00	327 00	.6840-02	.8210-02	.8210-02	.9000	.2978-03	.3575-03	.2369	1.830	532.3
97	1500.0	470 40	328.00	.1474-01	.1770-01	.1770-01	.9000	.6418-03	.7706-03	.5102	3.175	532.8
97	1500 0	514 00	329 00	.5368-02	.6440-02	.6440-02	9000	.2337-03	.2804-03	.1864	1.349	530.3
97	1500 0	532.30	331 00	.2607-02	.3125-02	.3125-02	.9000	.1135-03	.1361-03	.9084-01	.6003	527.3
97	1500 0	539 40	330 00	.3035-02	.3639-02	.3639-02	9000	.1321-03	.1585-03	.1056	.7646	528.7
97	1525 0	424 00	332 00	.1521-02	.1825-02	.1825-02	9000	.6624-04	.7946-04	.5286-01	.4091	529.6
97	1525 0	431.00	333 00	.4976-02	.5970-02	.5970-02	.9000	.2167-03	.2600-03	.1727	1.139	530.7
97	1525.0	440 00	334 00	.1302-01	.1563-01	.1563-01	.9000	.5669-03	.6804-03	.4512	2.890	531.8
97	1525 0	493 00	335 00	.1243-01	.1492-01	.1492-01	9000	.5411-03	.6495-03	.4302	3.324	532.6
97	1545.0	434 00	338 00	.3861-02	.4631-02	.4631-02	.9000	.1681-03	.2017-03	.1341	1.115	529.8
97	1545.0	443 00	339 00	.1171-01	.1405-01	.1405-01	.9000	.5099-03	.6119-03	.4063	2.336	530.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2567

OH84B 60-0 OMS POD

(R4US18)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
195	.4938	7.900	39.96	-1.991	98.69	1254.	92.99	.1097-01	.4792	3735.	.3184-03	.7483-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
195	.1696-01	.5753-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
195	1325.0	428.60	298.00	.1110-02	.1342-02	.1342-02	.9000	.1883-04	.2276-04	.1367-01	.1024	527.7
195	1325.0	489.20	299.00	.1006-02	.1215-02	.1215-02	.9000	.1706-04	.2061-04	.1240-01	.8447-01	526.7
195	1325.0	506.70	301.00	.5304-02	.6412-02	.6412-02	.9000	.8997-04	.1088-03	.6530-01	.5239	527.8
195	1325.0	511.30	300.00	.3214-02	.3886-02	.3886-02	.9000	.5451-04	.6591-04	.3952-01	.2958	528.7
195	1350.0	440.40	302.00	.2317-02	.2801-02	.2801-02	.9000	.3930-04	.4751-04	.2851-01	.2668	528.1
195	1350.0	458.60	303.00	.4834-02	.5844-02	.5844-02	.9000	.8199-04	.9912-04	.5948-01	.4453	528.2
195	1350.0	498.50	304.00	.4235-02	.5119-02	.5113-02	.9000	.7183-04	.8682-04	.5216-01	.3662	527.5
195	1350.0	515.50	306.00	.9694-02	.1172-01	.1172-01	.9000	.1644-03	.1988-03	.1191	.8625	529.2
195	1350.0	524.40	305.00	.5201-02	.6288-02	.6288-02	.9000	.8822-04	.1067-03	.6402-01	.4958	528.1
195	1375.0	421.60	308.00	.1243-02	.1503-02	.1503-02	.9000	.2108-04	.2550-04	.1527-01	.2142	529.5
195	1375.0	440.00	309.00	.4065-02	.4916-02	.4916-02	.9000	.6895-04	.8338-04	.4995-01	.4875	529.2
195	1375.0	460.00	310.00	.7122-02	.8610-02	.8610-02	.9000	.1208-03	.1460-03	.8762-01	.5622	528.4
195	1375.0	503.40	311.00	.4952-02	.5985-02	.5985-02	.9000	.8400-04	.1015-03	.6102-01	.4896	527.3
195	1375.0	531.00	312.00	.4311-02	.5210-02	.5210-02	.9000	.7313-04	.8838-04	.5313-01	.3851	527.1
195	1400.0	523.40	313.00	.8941-02	.1081-01	.1081-01	.9000	.1517-03	.1833-03	.1100	.9153	528.1
195	1425.0	415.10	315.00	.1104-02	.1335-02	.1335-02	.9000	.1873-04	.2264-04	.1358-01	.9836-01	528.5
195	1425.0	437.70	316.00	.6417-04	.7757-04	.7757-04	.9000	.1088-05	.1316-05	.7899-03	.5914-02	527.9
195	1425.0	466.30	317.00	.8107-02	.9799-02	.9799-02	.9000	.1375-03	.1662-03	.9982-01	.5900	527.8
195	1425.0	508.60	318.00	.3393-02	.4101-02	.4101-02	.9000	.5756-04	.6955-04	.4184-01	.3483	526.8
195	1425.0	536.50	319.00	.5975-02	.7220-02	.7220-02	.9000	.1013-03	.1225-03	.7368-01	.5520	526.7
195	1450.0	418.20	320.00	.9325-03	.1127-02	.1127-02	.9000	.1582-04	.1912-04	.1148-01	.1121	527.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US18)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
195	1450.0	436.00	321.00	.1957-02	.2365-02	.2365-02	.9000	.3319-04	.4011-04	.2410-01	.1867	527.5
195	1450.0	468.20	322.00	.6717-02	.8119-02	.8119-02	.9000	.1139-03	.1377-03	.8275-01	.5634	527.4
195	1450.0	511.10	323.00	.2278-02	.2752-02	.2752-02	.9000	.3863-04	.4667-04	.2812-01	.2529	525.9
195	1450.0	526.60	325.00	.9031-02	.1092-01	.1092-01	.9000	.1532-03	.1852-03	.1111	.9243	528.2
195	1500.0	437.00	327.00	.7011-03	.8467-03	.8467-03	.9000	.1189-04	.1436-04	.8666-02	.6723-01	524.9
195	1500.0	470.40	328.00	.3656-02	.4416-02	.4416-02	.9000	.6202-04	.7490-04	.4520-01	.2825	524.8
195	1500.0	514.00	329.00	.2528-02	.3054-02	.3054-02	.9000	.4289-04	.5180-04	.3124-01	.2267	525.2
195	1500.0	532.30	331.00	.7398-02	.8936-02	.8936-02	.9000	.1255-03	.1516-03	.9142-01	.6048	525.1
195	1500.0	539.40	330.00	.6176-02	.7462-02	.7462-02	.9000	.1048-03	.1266-03	.7622-01	.5528	526.1
195	1525.0	424.00	332.00	.3745-05	.4524-05	.4524-05	.9000	.6353-07	.7673-07	.4628-04	.3590-03	525.2
195	1525.0	440.00	334.00	.1052-02	.1271-02	.1271-02	.9000	.1785-04	.2156-04	.1302-01	.8367-01	524.5
195	1525.0	493.00	335.00	.3966-02	.4791-02	.4791-02	.9000	.6728-04	.8126-04	.4901-01	.3801	525.2
195	1545.0	443.00	339.00	.7912-03	.9554-03	.9554-03	.9000	.1342-04	.1621-04	.9788-02	.5647-01	524.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2569

OH84B 60-0 OMS POD

(R4US18)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -2.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
182	1 011	7.940	39 97	-1 995	206.3	1260.	92.56	.2219-01	.9793	3745.	.6470-03	.7449-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
182	.2427-01	.4037-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
182	1325.0	428.60	298.00	.1269-02	.1533-02	.1533-02	.9000	.3079-04	.3721-04	.2246-01	.1680	529.9
182	1325.0	489.20	299.00	.2567-02	.3100-02	.3100-02	.9000	.6231-04	.7524-04	.4566-01	.3109	526.8
182	1325.0	506.70	301.00	.1671-01	.2019-01	.2019-01	.9000	.4055-03	.4901-03	.2959	2.371	529.9
182	1325.0	511.30	300.00	.1772-01	.2142-01	.2142-01	.9000	.4301-03	.5198-03	.3137	2.346	530.3
182	1350.0	440.40	302.00	.2779-02	.3358-02	.3358-02	.9000	.6745-04	.8150-04	.4928-01	.4610	529.0
182	1350.0	458.60	303.00	.8081-02	.9763-02	.9763-02	.9000	.1961-03	.2369-03	.1434	1.074	528.3
182	1350.0	498.50	304.00	.4951-02	.5978-02	.5978-02	.9000	.1201-03	.1451-03	.8804-01	.6183	526.9
182	1350.0	515.50	306.00	.1840-01	.2224-01	.2224-01	.9000	.4465-03	.5397-03	.3257	2.357	530.2
182	1350.0	524.40	305.00	.1036-01	.1252-01	.1252-01	.9000	.2514-03	.3037-03	.1840	1.425	528.1
182	1375.0	421.60	308.00	.1493-02	.1805-02	.1805-02	.9000	.3622-04	.4381-04	.2636-01	.3692	532.1
182	1375.0	440.00	309.00	.3818-02	.4615-02	.4615-02	.9000	.9267-04	.1120-03	.6766-01	.6602	529.5
182	1375.0	460.00	310.00	.8743-02	.1056-01	.1056-01	.9000	.2122-03	.2563-03	.1552	.9960	528.1
182	1375.0	503.40	311.00	.6399-02	.7726-02	.7726-02	.9000	.1553-03	.1875-03	.1138	.9138	526.6
182	1375.0	531.00	312.00	.6362-02	.7682-02	.7682-02	.9000	.1544-03	.1864-03	.1132	.8204	526.7
182	1400.0	523.40	313.00	.1102-01	.1331-01	.1331-01	.9000	.2674-03	.3231-03	.1956	1.627	528.2
182	1425.0	415.10	315.00	.1688-02	.2041-02	.2041-02	.9000	.4097-04	.4953-04	.2987-01	.2161	530.7
182	1425.0	437.70	316.00	.4200-02	.5074-02	.5074-02	.9000	.1019-03	.1231-03	.7457-01	.5582	528.1
182	1425.0	466.30	317.00	.8138-02	.9826-02	.9826-02	.9000	.1975-03	.2385-03	.1448	.8562	526.7
182	1425.0	508.60	318.00	.5103-02	.6161-02	.6161-02	.9000	.1238-03	.1495-03	.9084-01	.7564	526.1
182	1425.0	536.50	319.00	.4400-02	.5312-02	.5312-02	.9000	.1068-03	.1289-03	.7839-01	.5876	525.6
182	1450.0	418.20	320.00	.1417-02	.1713-02	.1713-02	.9000	.3439-04	.4156-04	.2511-01	.2451	529.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2570

OH84B 60-0 OMS POD

(R4US18)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
182	1450.0	436.00	321.00	3235-02	.3908-02	.3908-02	.9000	.7852-04	.9483-04	.5748-01	.4453	527.6
182	1450 0	468.20	322.00	8864-02	.1070-01	.1070-01	.9000	.2151-03	.2598-03	.1577	1.074	526.8
182	1450.0	511.10	323.00	2861-02	.3453-02	.3453-02	.9000	.6944-04	.8380-04	.5104-01	.4593	524.7
182	1450 0	526.60	325.00	.3627-02	.4379-02	.4379-02	.9000	.8802-04	1063-03	.6454-01	.5373	526.4
182	1500.0	437.00	327 00	1687-02	.2036-02	.2036-02	9000	.4094-04	.4940-04	3012-01	.2337	524.0
182	1500.0	470.40	328.00	5402-02	.6518-02	.6518-02	.9000	.1311-03	1582-03	9645-01	.6030	524.0
182	1500.0	514.00	329.00	.3085-02	.3722-02	.3722-02	.9000	.7486-04	.9032-04	.5511-01	.4002	523.5
182	1500.0	532 30	331.00	2440-02	.2942-02	.2942-02	.9000	.5920-04	.7140-04	.4367-01	.2894	522.1
182	1500 0	539.40	330.00	4220-02	5092-02	.5092-02	9000	.1024-03	1236-03	7537-01	.5473	523.7
182	1525 0	424.00	332.00	.3006-03	3626-03	3626-03	9000	.7294-05	8800-05	.5369-02	4168-01	523.6
182	1525.0	431.00	333.00	.9210-03	1111-02	.1111-02	.9000	.2235-04	2696-04	.1646-01	.1090	523.5
182	1525 0	440.00	334.00	.3209-02	3871-02	.3871-02	.9000	.7787-04	.9394-04	.5734-01	.3688	523.3
182	1525.0	493.00	335.00	.5766-02	.6958-02	.6958-02	.9000	1399-03	.1688-03	.1029	.7987	524.2
182	1545.0	434.00	338.00	.9377-03	.1131-02	.1131-02	.9000	.2276-04	.2745-04	.1677-01	.1399	522.6
182	1545.0	443.00	339.00	.2854-02	.3443-02	.3443-02	.9000	.6927-04	.8355-04	.5104-01	.2947	522.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US18)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
173	2.017	7.980	39.99	-2.004	436.3	1298.	94.47	.4542-01	2.025	3802.	.1298-02	.7602-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
173	.3508-01	.2860-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
173	1325.0	428 60	298.00	.1592-02	.1918-02	.1918-02	.9000	.5585-04	.6727-04	.4269-01	.3187	533.3
173	1325.0	489.20	299.00	.4301-02	.5183-02	.5183-02	.9000	.1509-03	.1818-03	.1151	.7804	535.0
173	1325.0	506.70	301.00	.2727-01	.3291-01	.3291-01	.9000	.9566-03	.1154-02	.7246	5.777	540.1
173	1325.0	511.30	300.00	.2404-01	.2901-01	.2901-01	.9000	.8434-03	.1018-02	.6390	4.755	540.0
173	1350 0	440 40	302.00	.4573-02	.5510-02	.5510-02	.9000	.1604-03	.1933-03	.1224	1.142	534.5
173	1350.0	458 60	303.00	.1582-01	.1908-01	.1908-01	.9000	.5549-03	.6691-03	.4218	3.142	537.6
173	1350 0	498 50	304.00	.6929-02	.8350-02	.8350-02	.9000	.2431-03	.2929-03	.1854	1.297	534.9
173	1350 0	515 50	306.00	.2451-01	.2957-01	.2957-01	.9000	.8596-03	.1037-02	.6517	4.694	539.5
173	1350 0	524.40	305.00	.9609-02	.1158-01	.1158-01	.9000	.3371-03	.4062-03	.2570	1.983	535.2
173	1375 0	421.60	308.00	.1946-02	.2345-02	.2345-02	.9000	.6825-04	.8225-04	.5201-01	.7272	535.6
173	1375 0	440 00	309.00	.5291-02	.6377-02	.6377-02	.9000	.1856-03	.2237-03	.1415	1.376	535.4
173	1375.0	460.00	310 00	.1632-01	.1967-01	.1967-01	.9000	.5723-03	.6899-03	.4357	2.784	536.4
173	1375.0	503 40	311.00	.6766-02	.8163-02	.8163-02	.9000	.2377-03	.2863-03	.1815	1.451	534.2
173	1375 0	531.00	312.00	.6065-02	.7306-02	.7306-02	.9000	.2127-03	.2563-03	.1625	1.174	533.8
173	1400 0	523 40	313.00	.1100-01	.1325-01	.1325-01	.9000	.3857-03	.4649-03	.2938	2.434	535.9
173	1425 0	415 10	315.00	.2631-02	.3170-02	.3170-02	.9000	.9229-04	.1112-03	.7040-01	.5083	534.8
173	1425 0	437 70	316.00	.5876-02	.7081-02	.7081-02	.9000	.2061-03	.2484-03	.1573	1.173	534.7
173	1425 0	466 30	317.00	.9364-02	.1128-01	.1128-01	.9000	.3284-03	.3957-03	.2507	1.477	534.4
173	1425 0	508 60	318 00	.8723-02	.1051-01	.1051-01	.9000	.3060-03	.3688-03	.2331	1.932	535.7
173	1425.0	536 50	319 00	.6022-02	.7255-02	.7255-02	.9000	.2112-03	.2545-03	.1613	1.204	533.9
173	1450.0	418 20	320 00	.1682-02	.2027-02	.2027-02	.9000	.5900-04	.7109-04	.4503-01	.4383	534.4

DATE 23 FEB 80

OH848 MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH848 60-0 OMS POD

(R4US18)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R -FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
173	1450.0	436.00	321.00	.4284-02	.5162-02	.5162-02	.9000	.1503-03	.1810-03	.1146	.8847	534.8
173	1450.0	468.20	322.00	.1029-01	.1240-01	.1240-01	.9000	.3609-03	.4349-03	.2752	1.866	535.1
173	1450.0	511.10	323.00	.6210-02	.7482-02	.7482-02	.9000	.2178-03	.2624-03	.1662	1.488	534.7
173	1450.0	526.60	325.00	.2142-02	.2579-02	.2579-02	.9000	.7515-04	.9046-04	.5763-01	.4787	530.8
173	1500 0	437 00	327 00	.2943-02	.3545-02	.3545-02	.9000	.1032-03	.1244-03	.7894-01	.6098	533.1
173	1500 0	470.40	328 00	.8069-02	.9721-02	.9721-02	.9000	.2830-03	.3410-03	.2162	1.345	533.7
173	1500.0	514 00	329 00	.3074-02	.3702-02	.3702-02	.9000	.1078-03	.1299-03	.8247-01	.5961	532.8
173	1500.0	532.30	331 00	.1436-02	.1729-02	.1729-02	.9000	.5038-04	.6064-04	.3864-01	.2549	530.6
173	1500 0	539 40	330 00	.3103-02	.3736-02	.3736-02	.9000	.1088-03	.1311-03	.8325-01	.6018	532 7
173	1525 0	424.00	332 00	.5425-03	.6532-03	.6532-03	.9000	.1903-04	.2291-04	.1457-01	.1126	532.2
173	1525.0	431.00	333.00	.2078-02	.2502-02	.2502-02	.9000	.7288-04	.8777-04	.5576-01	.3675	532.6
173	1525.0	440 00	334.00	.5440-02	.6553-02	.6553-02	.9000	.1908-03	.2298-03	.1458	.9331	533.5
173	1525.0	493.00	335 00	.7904-02	.9524-02	.9524-02	.9000	.2772-03	.3341-03	.2115	1.632	534.8
173	1545.0	434.00	338.00	.1467-02	.1767-02	.1767-02	.9000	.5146-04	.6197-04	.3939-01	.3270	532.2
173	1545.0	443.00	339.00	.5309-02	.6395-02	.6395-02	.9000	.1862-03	.2243-03	.1424	.8177	533.3



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2573

OH84B 60-0 OMS POD

(R4US18)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
89	3.018	7.990	40.02	-2.030	669.3	1317.	95.63	.6912-01	3.089	3830.	.1951-02	.7696-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
89	.4343-01	.2336-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(10) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
89	1325.0	428.60	298 00	.2326-02	.2801-02	.2801-02	.9000	.1010-03	.1217-03	.7838-01	.5830	540.7
89	1325.0	489.20	299.00	.3107-02	.3737-02	.3737-02	.9000	.1349-03	.1623-03	.1054	.7142	535.9
89	1325.0	506.70	301 00	.2289-01	.2757-01	.2757-01	.9000	.9944-03	.1198-02	.7714	6.148	540.9
89	1325.0	511.30	300.00	.2052-01	.2471-01	.2471-01	.9000	.8911-03	.1073-02	.6912	5.141	540.9
89	1350.0	440.40	302 00	.7309-02	.8801-02	.8801-02	.9000	.3174-03	.3822-03	.2466	2.294	539.8
89	1350.0	458.60	303 00	.3390-01	.4088-01	.4088-01	.9000	.1472-02	.1776-02	1.135	8.425	545.5
89	1350.0	498.50	304.00	.6011-02	.7227-02	.7227-02	.9000	.2611-03	.3139-03	.2042	1.428	534.5
89	1350.0	515.50	306.00	.1963-01	.2363-01	.2363-01	.9000	.8525-03	.1026-02	.6631	4.778	538.8
89	1350.0	524.40	305.00	.8803-02	.1059-01	.1059-01	.9000	.3823-03	.4597-03	.2390	2.308	534.7
89	1375.0	421.60	308 00	.2211-02	.2665-02	.2665-02	.9000	.9601-04	.1157-03	.7416-01	1.033	514.2
89	1375.0	440.00	309.00	.6673-02	.8034-02	.8034-02	.9000	.2898-03	.3489-03	.2252	2.187	539.5
89	1375.0	460.00	310.00	.2511-01	.3023-01	.3023-01	.9000	.1091-02	.1313-02	.8479	5.410	539.3
89	1375.0	503.40	311 00	.9198-02	.1106-01	.1106-01	.9000	.3995-03	.4802-03	.3129	2.503	533.5
89	1375.0	531.00	312 00	.5647-02	.6785-02	.6785-02	.9000	.2453-03	.2947-03	.1926	1.393	531.6
89	1400.0	523.40	313 00	.9033-02	.1086-01	.1086-01	.9000	.3923-03	.4717-03	.3070	2.546	534.1
89	1425.0	415.10	315 00	.3923-02	.4726-02	.4726-02	.9000	.1704-03	.2053-03	.1320	.9492	542.1
89	1425.0	437.70	316 00	.7687-02	.9252-02	.9252-02	.9000	.3339-03	.4018-03	.2599	1.936	538.1
89	1425.0	466.30	317 00	.1397-01	.1680-01	.1680-01	.9000	.6067-03	.7296-03	.4743	2.794	534.8
89	1425.0	508.60	318 00	.9898-02	.1190-01	.1190-01	.9000	.4299-03	.5168-03	.3364	2.790	534.1
89	1425.0	536.50	319 00	.4185-02	.5027-02	.5027-02	.9000	.1817-03	.2183-03	.1428	1.067	531.1
89	1450.0	418.20	320 00	.2639-02	.3177-02	.3177-02	.9000	.1146-03	.1380-03	.8900-01	.8639	540.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US18)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
89	1450.0	436.00	321.00	.6247-02	.7517-02	.7517-02	.9000	.2713-03	.3265-03	.2116	1.631	536.9
89	1450.0	468.20	322.00	.1292-01	.1554-01	.1554-01	.9000	.5613-03	.6749-03	.4390	2.978	534.6
89	1450.0	511.10	323.00	.8349-02	.1003-01	.1003-01	.9000	.3626-03	.4358-03	.2843	2.548	532.7
89	1450.0	526.60	325.00	.2770-02	.3327-02	.3327-02	.9000	.1203-03	.1445-03	.9458-01	.7858	530.5
89	1500.0	437.00	327.00	.4934-02	.5928-02	.5928-02	.9000	.2143-03	.2575-03	.1683	1.301	531.5
89	1500.0	470.40	328.00	.1151-01	.1383-01	.1383-01	.9000	.5000-03	.6007-03	.3928	2.447	531.1
89	1500.0	514.00	329.00	.4623-02	.5552-02	.5552-02	.9000	.2008-03	.2411-03	.1581	1.145	529.4
89	1500.0	532.30	331.00	.2072-02	.2486-02	.2486-02	.9000	.8999-04	.1080-03	.7113-01	.4703	526.2
89	1500.0	539.40	330.00	.2805-02	.3367-02	.3367-02	.9000	.1218-03	.1462-03	.9604-01	.6958	528.2
89	1525.0	424.00	332.00	.1276-02	.1532-02	.1532-02	.9000	.5542-04	.6654-04	.4366-01	.3380	528.9
89	1525.0	431.00	333.00	.3204-02	.3847-02	.3847-02	.9000	.1391-03	.1671-03	.1095	.7227	529.7
89	1525.0	440.00	334.00	.7807-02	.9377-02	.9377-02	.9000	.3391-03	.4072-03	.2667	1.710	530.1
89	1525.0	493.00	335.00	.1045-01	.1255-01	.1255-01	.9000	.4539-03	.5452-03	.3569	2.761	530.3
89	1545.0	434.00	338.00	.2495-02	.2997-02	.2997-02	.9000	.1084-03	.1301-03	.8530-01	.7090	529.6
89	1545.0	443.00	339.00	.6840-02	.8215-02	.8215-02	.9000	.2971-03	.3568-03	.2338	1.345	529.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US20)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
191	.5026	7.900	39 96	- 9994	99.61	1247.	92.47	.1107-01	.4836	3724.	.3231-03	.7441-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
191	.1702-01	.5707-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
191	1325.0	428.60	298 00	.7050-03	.8535-03	.8535-03	.9000	.1200-04	.1453-04	.8597-02	.6429-01	530.3
191	1325.0	489.20	299 00	.1139-02	.1379-02	.1379-02	.9000	.1939-04	.2347-04	.1388-01	.9436-01	530.5
191	1325 0	506 70	301 00	.9364-02	.1134-01	.1134-01	.9000	.1594-03	.1931-03	.1140	.9128	531.5
191	1325 0	511.30	300 00	.6969-02	.8443-02	.8443-02	.9000	.1186-03	.1437-03	.8471-01	.6327	532.6
191	1350 0	440 40	302 00	.2483-02	.3007-02	.3007-02	.9000	.4227-04	.5119-04	.3025-01	.2827	531.0
191	1350.0	458 60	303 00	.3056-02	.3701-02	.3701-02	.9000	.5202-04	.6300-04	.3720-01	.2780	531.5
191	1350.0	498 50	304 00	.3327-02	.4029-02	.4029-02	.9000	.5664-04	.6859-04	.4053-01	.2840	531.2
191	1350.0	515 50	306 00	.1650-01	.1999-01	.1999-01	.9000	.2809-03	.3403-03	.2006	1.450	532.5
191	1350 0	524 40	305 00	.9552-02	.1157-01	.1157-01	.9000	.1626-03	.1970-03	.1162	.8978	532.3
191	1375 0	421 60	308 00	.1056-02	.1279-02	.1279-02	.9000	.1798-04	.2178-04	.1285-01	.1801	531.7
191	1375.0	440 00	309 00	.3621-02	.4386-02	.4386-02	.9000	.6164-04	.7467-04	.4405-01	.4293	532.0
191	1375 0	460 00	310 00	.6061-02	.7341-02	.7341-02	.9000	.1032-03	.1250-03	.7374-01	.4723	531.9
191	1375 0	503 40	311 00	.3065-02	.3711-02	.3711-02	.9000	.5218-04	.6318-04	.3735-01	.2992	530.9
191	1375.0	531 00	312 00	.7777-02	.9418-02	.9418-02	.9000	.1324-03	.1603-03	.9473-01	.6852	531.2
191	1400 0	523.40	313 00	.1045-01	.1265-01	.1265-01	.9000	.1779-03	.2154-03	.1272	1.056	531.4
191	1425.0	415.10	315 00	.7220-03	.8743-03	.8743-03	.9000	.1229-04	.1488-04	.8797-02	.6364-01	530.9
191	1425 0	466 30	317 00	.6352-02	.7694-02	.7694-02	.9000	.1081-03	.1310-03	.7732-01	.4561	531.7
191	1425 0	508 60	318 00	.2029-02	.2457-02	.2457-02	.9000	.3454-04	.4183-04	.2472-01	.2053	531 0
191	1425 0	536 50	319 00	.6091-02	.7375-02	.7375-02	.9000	.1037-03	.1256-03	.7423-01	.5549	530 8
191	1450.0	436 00	321 00	.1254-02	.1519-02	.1519-02	.9000	.2135-04	.2585-04	.1528-01	.1182	531.0
191	1450 0	468 20	322 00	.5290-02	.6407-02	.6407-02	.9000	.9006-04	.1091-03	.6439-01	.4375	531 6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US20)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
191	1450.0	511.10	323.00	.1702-02	.2061-02	.2061-02	.9000	.2897-04	.3508-04	.2074-01	.1861	530.6
191	1450.0	526.60	325.00	.7784-02	.9430-02	.9430-02	.9000	.1325-03	.1605-03	.9467-01	.7858	532.3
191	1500 0	437.00	327.00	.4290-03	.5194-03	.5194-03	.9000	.7303-05	.8842-05	.5231-02	.4047-01	530.4
191	1500 0	470.40	328 00	.2061-02	.2496-02	.2496-02	.9000	.3509-04	.4249-04	.2513-01	.1566	530.5
191	1500 0	514 00	329 00	.2318-02	.2807-02	.2807-02	.9000	.3945-04	.4778-04	.2823-01	.2043	531.0
191	1500 0	532 30	331 00	.5602-02	.6782-02	.6782-02	.9000	.9536-04	.1155-03	.6830-01	.4506	530.5
191	1500 0	539 40	330 00	.3776-02	.4573-02	.4573-02	.9000	.6428-04	.7785-04	.4599-01	.3327	531.2
191	1525 0	424.00	332 00	.4273-04	.5175-04	.5175-04	.9000	.7275-06	.8810-06	.5205-03	.4025-02	531.2
191	1525.0	431 00	333 00	.6573-04	.7959-04	.7959-04	.9000	.1119-05	.1355-05	.8009-03	.5283-02	530 9
191	1525 0	440 00	334.00	.1071-02	.1297-02	.1297-02	.9000	.1824-04	.2208-04	.1306-01	.8371-01	530.5
191	1525 0	493.00	335 00	.2473-02	.2994-02	.2994-02	.9000	.4209-04	.5097-04	.3012-01	.2329	531.2
191	1545 0	434.00	338.00	.5040-04	.6103-04	.6103-04	.9000	.8580-06	.1039-05	.6143-03	.5104-02	530.7
191	1545 0	443 00	339.00	.6550-03	.7931-03	.7931-03	.9000	.1115-04	.1350-04	.7986-02	.4593-01	530 5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2577

OH84B 60-0 OMS POD

(R4US21)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
192	.5105	7.900	39 99	-1.007	101 0	1246.	92 40	.1123-01	.4906	3723.	.3281-03	.7435-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
192	1714-01	.5663-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
192	1325.0	428.60	298.00	.1102-02	.1333-02	.1333-02	.9000	.1889-04	.2285-04	.1356-01	.1015	527.6
192	1325.0	489 20	299.00	.1976-02	.2389-02	.2389-02	.9000	.3388-04	.4096-04	.2440-01	.1663	525.5
192	1325.0	506.70	301.00	.9751-02	.1180-01	.1180-01	.9000	.1672-03	.2022-03	.1201	.9632	527.5
192	1325.0	511.30	300.00	.7505-02	.9081-02	.9081-02	.9000	.1287-03	.1557-03	.9238-01	.6917	527.7
192	1350.0	440.40	302.00	.2650-02	.3206-02	.3206-02	.9000	.4543-04	.5496-04	.3265-01	.3057	527.0
192	1350.0	458 60	303.00	.3554-02	.4298-02	.4298-02	.9000	.6092-04	.7368-04	.4383-01	.3284	526.2
192	1350.0	498 50	304 00	.3778-02	.4569-02	.4569-02	.9000	.6478-04	.7832-04	.4665-01	.3279	525.5
192	1350.0	515 50	306.00	.1646-01	.1991-01	.1991-01	.9000	.2822-03	.3414-03	.2025	1.467	528.0
192	1350.0	524 40	305.00	.9614-02	.1163-01	.1163-01	.9000	.1648-03	.1994-03	.1184	.9178	527.0
192	1375 0	421 60	308 00	.1143-02	.1384-02	.1384-02	.9000	.1959-04	.2372-04	.1404-01	.1969	529.3
192	1375.0	440 00	309.00	.3947-02	.4775-02	.4775-02	.9000	.6766-04	.8186-04	.4861-01	.4748	527.3
192	1375 0	460.00	310 00	.6834-02	.8265-02	.8265-02	.9000	.1172-03	.1417-03	.8433-01	.5417	525.9
192	1375.0	503 40	311.00	.3208-02	.3978-02	.3978-02	.9000	.5500-04	.6649-04	.3965-01	.3186	524.8
192	1375 0	531 00	312 00	.7971-02	.9639-02	.9639-02	.9000	.1366-03	.1652-03	.9835-01	.7133	525 9
192	1400 0	523 40	313 00	.1051-01	.1272-01	.1272-01	.9000	.1802-03	.2180-03	.1296	1.079	526.6
192	1425.0	415 10	315 00	.6848-03	.8287-03	.8287-03	.9000	.1174-04	.1421-04	.8423-02	.6102-01	528.2
192	1425 0	437 70	316 00	.9933-03	.1201-02	.1201-02	.9000	.1703-04	.2059-04	.1226-01	.9187-01	525.9
192	1425 0	466 30	317 00	.6897-02	.8339-02	.8339-02	.9000	.1182-03	.1430-03	.8518-01	.5041	525.3
192	1425 0	508 60	318 00	.2195-02	.2653-02	.2653-02	.9000	.3763-04	.4549-04	.2712-01	.2260	524 8
192	1425 0	536 50	319 00	.6318-02	.7640-02	.7640-02	.9000	.1083-03	.1310-03	.7802-01	.5848	525 4
192	1450.0	418.20	320.00	.5588-03	.6760-03	.6760-03	.9000	.9580-05	.1159-04	.6882-02	.6723-01	527.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US21)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
192	1450.0	436.00	321.00	.1411-02	.1706-02	.1706-02	.9000	.2419-04	.2925-04	.1741-01	.1350	525.8
192	1450 0	468.20	322.00	.5225-02	.6316-02	.6316-02	.9000	.8957-04	.1083-03	.6454-01	.4399	525.1
192	1450 0	511.10	323.00	.1989-02	.2404-02	.2404-02	.9000	.3409-04	.4121-04	.2460-01	.2214	524.2
192	1450 0	526.60	325.00	.7813-02	.9451-02	.9451-02	.9000	.1339-03	.1620-03	.9630-01	.8016	526.7
192	1500 0	437.00	327 00	.7180-03	.8677-03	.8677-03	.9000	.1231-04	.1488-04	.8887-02	.6898-01	523.7
192	1500 0	470.40	328.00	.2159-02	.2609-02	.2609-02	.9000	.3701-04	.4472-04	.2673-01	.1672	523.4
192	1500 0	514.00	329 00	.2534-02	.3062-02	.3062-02	.9000	.4344-04	.5250-04	.3137-01	.2278	523.6
192	1500 0	532.30	331 00	.6075-02	.7340-02	.7340-02	.9000	.1042-03	.1258-03	.7530-01	.4988	522.7
192	1500 0	539.40	330.00	.3721-02	.4497-02	.4497-02	.9000	.6379-04	.7709-04	.4606-01	.3345	523.6
192	1525 0	424.00	332.00	.3460-04	.4181-04	.4181-04	.9000	.5931-06	.7168-06	.4281-03	.3323-02	523.8
192	1525.0	431.00	333.00	.3101-03	.3748-03	.3748-03	.9000	.5317-05	.6425-05	.3839-02	.2542-01	523.6
192	1525 0	440 00	334.00	.5581-03	.6744-03	.6744-03	.9000	.9568-05	.1156-04	.6913-02	.4447-01	523.2
192	1525 0	493 00	335.00	.2557-02	.3090-02	.3090-02	.9000	.4384-04	.5298-04	.3166-01	.2457	523.5
192	1545 0	434 00	338 00	.3062-03	.3700-03	.3700-03	.9000	.5250-05	.6344-05	.3792-02	.3162-01	523.4
192	1545.0	443.00	339.00	.8216-03	.9927-03	.9927-03	.9000	.1408-04	.1702-04	.1018-01	.5876-01	523.1

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2579

OH84B 60-O OMS POD

(R4US21)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
179	1.009	7.940	39.99	-1.007	205.6	1259.	92.49	.2212-01	.9760	3743.	.6454-03	.7443-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
179	.2422-01	.4042-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
179	1325.0	428.60	298.00	.1349-02	.1633-02	.1633-02	.9000	.3269-04	.3957-04	.2366-01	.1765	534.8
179	1325.0	489.20	299.00	.5240-02	.6345-02	.6345-02	.9000	.1269-03	.1537-03	.9177-01	.6222	535.7
179	1325.0	506.70	301.00	.1846-01	.2236-01	.2236-01	.9000	.4473-03	.5417-03	.3229	2.579	536.6
179	1325.0	511.30	300.00	.2510-01	.3042-01	.3042-01	.9000	.6081-03	.7369-03	.4378	3.260	538.7
179	1350.0	440.40	302.00	.3121-02	.3779-02	.3779-02	.9000	.7561-04	.9154-04	.5469-01	.5099	535.4
179	1350.0	458.60	303.00	.3569-02	.4321-02	.4321-02	.9000	.8646-04	.1047-03	.6254-01	.4665	535.3
179	1350.0	498.50	304.00	.5267-02	.6377-02	.6377-02	.9000	.1276-03	.1545-03	.9224-01	.6449	535.6
179	1350.0	515.50	306.00	.2373-01	.2875-01	.2875-01	.9000	.5747-03	.6964-03	.4141	2.985	538.2
179	1350.0	524.40	305.00	.1557-01	.1885-01	.1885-01	.9000	.3771-03	.4567-03	.2723	2.100	536.6
179	1375.0	421.60	308.00	.1212-02	.1467-02	.1467-02	.9000	.2935-04	.3554-04	.2121-01	.2965	536.1
179	1375.0	440.00	309.00	.3940-02	.4771-02	.4771-02	.9000	.9543-04	.1156-03	.6894-01	.6704	536.2
179	1375.0	460.00	310.00	.6159-02	.7458-02	.7458-02	.9000	.1492-03	.1807-03	.1078	.6893	535.9
179	1375.0	503.40	311.00	.4827-02	.5844-02	.5844-02	.9000	.1169-03	.1416-03	.8460-01	.6762	535.2
179	1375.0	531.00	312.00	.1006-01	.1218-01	.1218-01	.9000	.2436-03	.2949-03	.1762	1.272	535.4
179	1400.0	523.40	313.00	.1301-01	.1576-01	.1576-01	.9000	.3153-03	.3818-03	.2276	1.885	536.7
179	1425.0	415.10	315.00	.1191-02	.1442-02	.1442-02	.9000	.2886-04	.3493-04	.2087-01	.1507	535.2
179	1425.0	437.70	316.00	.3422-02	.4143-02	.4143-02	.9000	.8290-04	.1004-03	.5997-01	.4473	535.3
179	1425.0	466.30	317.00	.7402-02	.8962-02	.8962-02	.9000	.1793-03	.2171-03	.1296	.7633	535.6
179	1425.0	508.60	318.00	.4125-02	.4994-02	.4994-02	.9000	.9993-04	.1210-03	.7228-01	.5991	535.3
179	1425.0	536.50	319.00	.6833-02	.8272-02	.8272-02	.9000	.1655-03	.2004-03	.1197	.8930	535.3
179	1450.0	418.20	320.00	.5690-03	.6888-03	.6888-03	.9000	.1378-04	.1668-04	.9974-02	.9705-01	535.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US21)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
179	1450.0	436.00	321.00	.1862-02	.2254-02	.2254-02	.9000	.4510-04	.5460-04	.3264-01	.2519	535.0
179	1450.0	468.20	322.00	.8180-02	.9904-02	.9904-02	.9000	.1982-03	.2399-03	.1433	.9719	535.3
179	1450 0	511.10	323.00	.3283-02	.3974-02	.3974-02	.9000	.7953-04	.9627-04	.5758-01	.5155	534.8
179	1450 0	526 60	325.00	.7275-02	.8809-02	.8809-02	.9000	.1762-03	.2134-03	.1274	1.055	535.9
179	1500.0	437 00	327 00	.9207-03	.1114-02	.1114-02	.9000	.2230-04	.2699-04	.1616-01	.1248	534.0
179	1500.0	470.40	328.00	.3571-02	.4323-02	.4323-02	.9000	.8651-04	.1047-03	.6266-01	.3897	534.4
179	1500 0	514.00	329 00	.3607-02	.4366-02	.4366-02	.9000	.8737-04	.1058-03	.6326-01	.4568	534.7
179	1500 0	532 30	331 00	.4832-02	.5848-02	.5848-02	.9000	.1171-03	.1417-03	.8483-01	.5586	534.0
179	1500.0	539.40	330 00	.5081-02	.6151-02	.6151-02	.9000	.1231-03	.1490-03	.8905-01	.6429	535.1
179	1525 0	424.00	332 00	.4353-04	.5269-04	.5269-04	.9000	.1054-05	.1276-05	.7635-03	.5894-02	534.6
179	1525.0	431 00	333.00	.2010-03	.2432-03	.2432-03	.9000	.4868-05	.5891-05	.3527-02	.2322-01	534.2
179	1525 0	440.00	334 00	.1271-02	.1538-02	.1538-02	.9000	.3080-04	.3727-04	.2233-01	.1429	533.7
179	1525.0	493.00	335.00	.3966-02	.4801-02	.4801-02	.9000	.9608-04	.1163-03	.6956-01	.5369	534.7
179	1545.0	434.00	338.00	.4926-03	.5960-03	.5960-03	.9000	.1193-04	.1444-04	.8649-02	.7174-01	533.8
179	1545.0	443.00	339 00	.1151-02	.1393-02	.1393-02	.9000	.2788-04	.3373-04	.2021-01	.1161	533.7



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US21)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BOFLAP = .0000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
167	2.003	7.980	40.01	-1.009	434.6	1301	94.69	.4525-01	2.017	3807.	.1290-02	.7620-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) #.0175
167	3502-01	.2869-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
167	1325.0	428.60	298.00	.1304-02	.1572-02	.1572-02	.9000	.4567-04	.5505-04	.3485-01	.2596	537.5
167	1325.0	489.20	299.00	.4365-02	.5262-02	.5262-02	.9000	.1529-03	.1843-03	.1167	.7903	537.4
167	1325.0	506.70	301.00	.3139-01	.3788-01	.3788-01	.9000	.1099-02	.1327-02	.8335	6.637	542.4
167	1325.0	511.30	300.00	.2848-01	.3438-01	.3438-01	.9000	.9973-03	.1204-02	.7556	5.614	543.0
167	1350.0	440.40	302.00	.3143-02	.3789-02	.3789-02	.9000	.1101-03	.1327-03	.8399-01	.7821	537.6
167	1350.0	458.60	303.00	.8744-02	.1054-01	.1054-01	.9000	.3062-03	.3693-03	.2332	1.737	539.0
167	1350.0	498.50	304.00	.5415-02	.6526-02	.6526-02	.9000	.1897-03	.2285-03	.1450	1.013	536.4
167	1350.0	515.50	306.00	.2510-01	.3028-01	.3028-01	.9000	.8790-03	.1060-02	.6681	4.810	540.6
167	1350.0	524.40	305.00	.1255-01	.1513-01	.1513-01	.9000	.4397-03	.5299-03	.3358	2.589	537.0
167	1375.0	421.60	308.00	.1815-02	.2189-02	.2189-02	.9000	.6356-04	.7667-04	.4835-01	.6746	540.0
167	1375.0	440.00	309.00	.4611-02	.5559-02	.5559-02	.9000	.1615-03	.1947-03	.1231	1.196	538.2
167	1375.0	460.00	310.00	.8427-02	.1016-01	.1016-01	.9000	.2951-03	.3557-03	.2253	1.439	537.1
167	1375.0	503.40	311.00	.6279-02	.7564-02	.7564-02	.9000	.2199-03	.2649-03	.1684	1.346	535.0
167	1375.0	531.00	312.00	.7521-02	.9059-02	.9059-02	.9000	.2634-03	.3173-03	.2018	1.457	534.7
167	1400.0	523.40	313.00	.1158-01	.1396-01	.1396-01	.9000	.4057-03	.4889-03	.3102	2.570	536.1
167	1425.0	415.10	315.00	.2067-02	.2492-02	.2492-02	.9000	.7239-04	.8728-04	.5519-01	.3978	538.2
167	1425.0	437.70	316.00	.5526-02	.6660-02	.6660-02	.9000	.1935-03	.2332-03	.1479	1.102	536.7
167	1425.0	466.30	317.00	.1010-01	.1217-01	.1217-01	.9000	.3537-03	.4262-03	.2705	1.592	536.0
167	1425.0	508.60	318.00	.5723-02	.6893-02	.6893-02	.9000	.2004-03	.2414-03	.1535	1.273	534.7
167	1425.0	536.50	319.00	.4900-02	.5900-02	.5900-02	.9000	.1716-03	.2066-03	.1317	.9831	533.3
167	1450.0	418.20	320.00	.1223-02	.1474-02	.1474-02	.9000	.4283-04	.5162-04	.3271-01	.3180	537.0

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O OMS POD

(R4US21)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
167	1450.0	436.00	321.00	.3350-02	.4037-02	.4037-02	.9000	.1173-03	.1414-03	.8969-01	.6918	536.2
167	1450.0	468.20	322.00	.9431-02	.1136-01	.1136-01	.9000	.3303-03	.3980-03	.2526	1.713	535.8
167	1450.0	511.10	323.00	.3527-02	.4247-02	.4247-02	.9000	.1235-03	.1487-03	.9477-01	.8491	533.4
167	1450.0	526.60	325.00	.4031-02	.4855-02	.4855-02	.9000	.1412-03	.1700-03	.1082	.8975	534.1
167	1500.0	437.00	327.00	.1979-02	.2383-02	.2383-02	.9000	.6932-04	.8344-04	.5328-01	.4118	532.1
167	1500.0	470.40	328.00	.6593-02	.7937-02	.7937-02	.9000	.2309-03	.2780-03	.1774	1.105	532.3
167	1500.0	514.00	329.00	.3109-02	.3742-02	.3742-02	.9000	.1089-03	.1311-03	.8375-01	.6057	531.6
167	1500.0	532.30	331.00	.2306-02	.2774-02	.2774-02	.9000	.8077-04	.9716-04	.6227-01	.4110	529.7
167	1500.0	539.40	330.00	.3715-02	.4471-02	.4471-02	.9000	.1301-03	.1566-03	.1001	.7238	531.6
167	1525.0	424.00	332.00	.3357-03	.4040-03	.4040-03	.9000	.1176-04	.1415-04	.9048-02	.6996-01	531.1
167	1525.0	431.00	333.00	.1029-02	.1238-02	.1238-02	.9000	.3604-04	.4337-04	.2772-01	.1828	531.4
167	1525.0	440.00	334.00	.3397-02	.4089-02	.4089-02	.9000	.1190-03	.1432-03	.9149-01	.5860	531.7
167	1525.0	493.00	335.00	.7316-02	.8809-02	.8809-02	.9000	.2562-03	.3085-03	.1966	1.519	533.3
167	1545.0	434.00	338.00	.8513-03	.1024-02	.1024-02	.9000	.2981-04	.3588-04	.2295-01	.1907	530.8
167	1545.0	443.00	339.00	.2958-02	.3560-02	.3560-02	.9000	.1036-03	.1247-03	.7974-01	.4585	531.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US21)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
85	3 028	7 990	40.08	-1.034	670.0	1315.	95.49	.6919-01	3.092	3827.	.1956-02	.7684-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
85	.4344-01	.2333-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
85	1325.0	428.60	298.00	.2575-02	.3101-02	.3101-02	.9000	.1119-03	.1347-03	.8672-01	.6455	539.5
85	1325.0	489.20	299.00	.3604-02	.4337-02	.4337-02	.9000	.1566-03	.1884-03	.1218	.8251	536.9
85	1325.0	506.70	301.00	.2679-01	.3228-01	.3228-01	.9000	.1164-02	.1402-02	.8997	7.167	541.7
85	1325.0	511.30	300.00	.2505-01	.3019-01	.3019-01	.9000	.1088-02	.1312-02	.8406	6.248	542.3
85	1350.0	440.40	302.00	.5800-02	.6985-02	.6985-02	.9000	.2520-03	.3034-03	.1953	1.818	539.4
85	1350.0	458.60	303.00	.2276-01	.2744-01	.2744-01	.9000	.9887-03	.1192-02	.7621	5.660	543.9
85	1350.0	498.50	304.00	.6652-02	.8003-02	.8003-02	.9000	.2890-03	.3477-03	.2251	1.574	535.7
85	1350.0	515.50	306.00	.2022-01	.2435-01	.2435-01	.9000	.8785-03	.1058-02	.6814	4.909	539.0
85	1350.0	524.40	305.00	.9049-02	.1088-01	.1088-01	.9000	.3931-03	.4729-03	.3065	2.365	535.1
85	1375.0	421.60	308.00	.1990-02	.2398-02	.2398-02	.9000	.8643-04	.1042-03	.6677-01	.9307	542.1
85	1375.0	440.00	309.00	.5393-02	.6494-02	.6494-02	.9000	.2343-03	.2821-03	.1817	1.764	539.2
85	1375.0	460.00	310.00	.1528-01	.1839-01	.1839-01	.9000	.6637-03	.7990-03	.5152	3.289	538.4
85	1375.0	503.40	311.00	.8821-02	.1061-01	.1061-01	.9000	.3832-03	.4608-03	.2992	2.393	533.9
85	1375.0	531.00	312.00	.5463-02	.6565-02	.6565-02	.9000	.2373-03	.2852-03	.1858	1.344	531.6
85	1400.0	523.40	313.00	.9212-02	.1108-01	.1108-01	.9000	.4002-03	.4813-03	.3123	2.590	534.3
85	1425.0	415.10	315.00	.3501-02	.4217-02	.4217-02	.9000	.1521-03	.1832-03	.1177	.8477	540.4
85	1425.0	437.70	316.00	.6284-02	.7563-02	.7563-02	.9000	.2730-03	.3286-03	.2121	1.580	537.6
85	1425.0	466.30	317.00	.1080-01	.1299-01	.1299-01	.9000	.4694-03	.5645-03	.3660	2.156	534.9
85	1425.0	508.50	318.00	.9478-02	.1140-01	.1140-01	.9000	.4118-03	.4952-03	.3214	2.665	534.1
85	1425.0	536.50	319.00	.4644-02	.5581-02	.5581-02	.9000	.2018-03	.2425-03	.1581	1.181	531.3
85	1450.0	418.20	320.00	.2381-02	.2866-02	.2866-02	.9000	.1034-03	.1245-03	.8026-01	.7795	538.7

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OH84B MDEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US21)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
85	1450.0	436.00	321.00	.5808-02	.6988-02	.6988-02	.9000	.2523-03	.3036-03	.1963	1.514	536.6
85	1450.0	468.20	322.00	.1103-01	.1327-01	.1327-01	.9000	.4793-03	.5765-03	.3736	2.533	535.2
85	1450.0	511.10	323.00	.7563-02	.9092-02	.9092-02	.9000	.3286-03	.3950-03	.2569	2.302	532.8
85	1450.0	526.60	325.00	.2769-02	.3327-02	.3327-02	.9000	.1203-03	.1445-03	.9431-01	.7834	530.7
85	1500.0	437.00	327.00	.4257-02	.5115-02	.5115-02	.9000	.1849-03	.2222-03	.1448	1.120	531.5
85	1500.0	470.40	328.00	.1064-01	.1279-01	.1279-01	.9000	.4623-03	.5556-03	.3621	2.255	531.5
85	1500.0	514.00	329.00	.3823-02	.4592-02	.4592-02	.9000	.1661-03	.1995-03	.1304	.9436	529.7
85	1500.0	532.30	331.00	.2047-02	.2456-02	.2456-02	.9000	.8891-04	.1067-03	.7006-01	.4631	526.7
85	1500.0	539.40	330.00	.3542-02	.4254-02	.4254-02	.9000	.1539-03	.1848-03	.1209	.8753	529.1
85	1525.0	424.00	332.00	.1008-02	.1211-02	.1211-02	.9000	.4379-04	.5259-04	.3440-01	.2663	529.1
85	1525.0	431.00	333.00	.2518-02	.3025-02	.3025-02	.9000	.1094-03	.1314-03	.8587-01	.5668	529.6
85	1525.0	440.00	334.00	.5927-02	.7120-02	.7120-02	.9000	.2575-03	.3093-03	.2020	1.295	530.0
85	1525.0	493.00	335.00	.1015-01	.1220-01	.1220-01	.9000	.4411-03	.5299-03	.3459	2.675	530.5
85	1545.0	434.00	338.00	.2066-02	.2482-02	.2482-02	.9000	.8976-04	.1078-03	.7047-01	.5857	529.7
85	1545.0	443.00	339.00	.5320-02	.6390-02	.6390-02	.9000	.2311-03	.2776-03	.1814	1.044	529.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US22)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
16	.5159	7.900	40.01	-.3149-02	102.0	1245.	92.32	.1134-01	.4952	3721.	.3314-03	.7429-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
16	.1722-01	.5634-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
16	1325.0	428.60	298.00	.7775-03	.9416-03	.9416-03	.9000	.1339-04	.1622-04	.9562-02	.7150-01	530.5
16	1325.0	489.20	299.00	.4077-02	.4934-02	.4934-02	.9000	.7022-04	.8497-04	.5035-01	.3427	527.7
16	1325.0	506.70	301.00	.1663-01	.2014-01	.2014-01	.9000	.2864-03	.3468-03	.2049	1.642	529.4
16	1325.0	511.30	300.00	.1445-01	.1749-01	.1749-01	.9000	.2488-03	.3013-03	.1780	1.332	529.2
16	1350.0	440.40	302.00	.2789-02	.3377-02	.3377-02	.9000	.4804-04	.5816-04	.3436-01	.3214	529.3
16	1350.0	458.60	303.00	.3410-02	.4127-02	.4127-02	.9000	.5873-04	.7108-04	.4208-01	.3150	528.2
16	1350.0	498.50	304.00	.4912-02	.5943-02	.5943-02	.9000	.8460-04	.1023-03	.6073-01	.4265	526.8
16	1350.0	515.50	306.00	.1317-01	.1594-01	.1594-01	.9000	.2268-03	.2745-03	.1623	1.175	529.0
16	1350.0	524.40	305.00	.1007-01	.1218-01	.1218-01	.9000	.1733-03	.2098-03	.1242	.9617	528.2
16	1375.0	421.60	308.00	.9055-03	.1097-02	.1097-02	.9000	.1559-04	.1890-04	.1111-01	.1555	532.5
16	1375.0	440.00	309.00	.3638-02	.4404-02	.4404-02	.9000	.6265-04	.7584-04	.4482-01	.4375	529.2
16	1375.0	460.00	310.00	.5986-02	.7243-02	.7243-02	.9000	.1031-03	.1247-03	.7394-01	.4746	527.5
16	1375.0	503.40	311.00	.3743-02	.4526-02	.4526-02	.9000	.6446-04	.7794-04	.4636-01	.3724	525.4
16	1375.0	531.00	312.00	.7366-02	.8910-02	.8910-02	.9000	.1269-03	.1534-03	.9113-01	.6608	526.3
16	1400.0	523.40	313.00	.7832-02	.9478-02	.9478-02	.9000	.1349-03	.1632-03	.9669-01	.8044	527.8
16	1425.0	415.10	315.00	.7879-03	.9544-03	.9544-03	.9000	.1357-04	.1644-04	.9684-02	.7005-01	531.1
16	1425.0	437.70	316.00	.2622-02	.3173-02	.3173-02	.9000	.4516-04	.5465-04	.3238-01	.2425	527.6
16	1425.0	466.30	317.00	.6056-02	.7325-02	.7325-02	.9000	.1043-03	.1262-03	.7492-01	.4432	526.3
16	1425.0	508.60	318.00	.2503-02	.3026-02	.3026-02	.9000	.4310-04	.5212-04	.3099-01	.2581	525.6
16	1425.0	536.50	319.00	.5577-02	.6746-02	.6746-02	.9000	.9605-04	.1162-03	.6899-01	.5169	526.4
16	1450.0	418.20	320.00	.7295-03	.8833-03	.8833-03	.9000	.1256-04	.1521-04	.8983-02	.8764-01	529.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US22)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
16	1450.0	436.00	321.00	.1283-02	.1552-02	.1552-02	.9000	.2209-04	.2673-04	.1585-01	.1228	527.3
16	1450.0	468.20	322.00	.4797-02	.5801-02	.5801-02	.9000	.8261-04	.9991-04	.5939-01	.4047	525.7
16	1450.0	511.10	323.00	.2134-02	.2580-02	.2580-02	.9000	.3675-04	.4443-04	.2645-01	.2380	524.8
16	1450.0	526.60	325.00	.6085-02	.7360-02	.7360-02	.9000	.1048-03	.1267-03	.7527-01	.6267	526.3
16	1500.0	437.00	327.00	.8135-03	.9835-03	.9835-03	.9000	.1401-04	.1694-04	.1009-01	.7829-01	524.5
16	1500.0	470.40	328.00	.2007-02	.2426-02	.2426-02	.9000	.3456-04	.4177-04	.2491-01	.1557	524.0
16	1500.0	514.00	329.00	.3224-02	.3897-02	.3897-02	.9000	.5552-04	.6712-04	.4001-01	.2905	524.0
16	1500.0	532.30	331.00	.4216-02	.5094-02	.5094-02	.9000	.7260-04	.8773-04	.5242-01	.3472	522.7
16	1500.0	539.40	330.00	.3467-02	.4191-02	.4191-02	.9000	.5971-04	.7217-04	.4304-01	.3125	523.8
16	1525.0	424.00	332.00	.3733-03	.4513-03	.4513-03	.9000	.6428-05	.7772-05	.4628-02	.3591-01	524.7
16	1525.0	431.00	333.00	.2690-03	.3252-03	.3252-03	.9000	.4633-05	.5601-05	.3337-02	.2209-01	524.4
16	1525.0	440.00	334.00	.1246-02	.1505-02	.1505-02	.9000	.2145-04	.2592-04	.1547-01	.9953-01	523.3
16	1525.0	493.00	335.00	.2306-02	.2787-02	.2787-02	.9000	.3972-04	.4799-04	.2868-01	.2228	522.5
16	1545.0	434.00	338.00	.5147-03	.6221-03	.6221-03	.9000	.8864-05	.1071-04	.6389-02	.5326-01	523.9
16	1545.0	443.00	339.00	.1100-02	.1330-02	.1330-02	.9000	.1895-04	.2190-04	.1366-01	.7886-01	523.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2587

OH84B 60-0 OMS POD

(R4US22)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
32	1 002	7 940	40 01	-.1050-02	205.9	1266.	93.00	.2215-01	.9775	3754.	.6428-03	.7484-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
32	.2427-01	.4053-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOI BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
32	1325.0	428.60	298.00	.1117-02	.1348-02	.1348-02	.9000	.2709-04	.3271-04	.1998-01	.1495	528.4
32	1325.0	489.20	299.00	.7451-02	.8998-02	.8998-02	.9000	.1808-03	.2183-03	.1331	.9050	529.6
32	1325.0	506.70	301.00	.2858-01	.3452-01	.3452-01	.9000	.6934-03	.8377-03	.5094	4.080	531.0
32	1325.0	511.30	300.00	.3089-01	.3734-01	.3734-01	.9000	.7496-03	.9060-03	.5496	4.105	532.5
32	1350.0	440.40	302.00	.2576-02	.3110-02	.3110-02	.9000	.6250-04	.7547-04	.4606-01	.4308	528.8
32	1350.0	458.60	303.00	.3363-02	.4060-02	.4060-02	.9000	.8160-04	.9853-04	.6011-01	.4498	529.1
32	1350.0	498.50	304.00	.7139-02	.8620-02	.8620-02	.9000	.1732-03	.2092-03	.1276	.8951	529.1
32	1350.0	515.50	306.00	.2467-01	.2981-01	.2981-01	.9000	.5986-03	.7233-03	.4393	3.177	531.8
32	1350.0	524.40	305.00	.1216-01	.1469-01	.1469-01	.9000	.2951-03	.3564-03	.2172	1.681	529.6
32	1375.0	421.60	308.00	.1321-02	.1596-02	.1596-02	.9000	.3206-04	.3872-04	.2358-01	.3306	530.2
32	1375.0	440.00	309.00	.3737-02	.4513-02	.4513-02	.9000	.9068-04	.1095-03	.6674-01	.6511	529.7
32	1375.0	460.00	310.00	.5834-02	.7045-02	.7045-02	.9000	.1416-03	.1709-03	.1043	.6687	529.2
32	1375.0	503.40	311.00	.5765-02	.6958-02	.6958-02	.9000	.1399-03	.1688-03	.1032	.8282	527.7
32	1375.0	531.00	312.00	.6949-02	.8387-02	.8387-02	.9000	.1686-03	.2035-03	.1245	.9025	527.3
32	1400.0	523.40	313.00	.1076-01	.1300-01	.1300-01	.9000	.2612-03	.3154-03	.1925	1.601	528.8
32	1425.0	415.10	315.00	.7240-03	.8742-03	.8742-03	.9000	.1757-04	.2121-04	.1295-01	.9378-01	528.7
32	1425.0	437.70	316.00	.3710-03	.4478-03	.4478-03	.9000	.9003-05	.1087-04	.6644-02	.4976-01	527.6
32	1425.0	466.30	317.00	.6543-02	.7898-02	.7898-02	.9000	.1588-03	.1917-03	.1171	.6924	527.9
32	1425.0	508.60	318.00	.5194-02	.6269-02	.6269-02	.9000	.1260-03	.1521-03	.9301-01	.7739	527.6
32	1425.0	536.50	319.00	.6742-02	.8137-02	.8137-02	.9000	.1636-03	.1975-03	.1208	.9045	527.4
32	1450.0	418.20	320.00	.6218-03	.7506-03	.7506-03	.9000	.1509-04	.1821-04	.1113-01	.1087	528.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2588

OH84B 60-0 OMS POD

(R4US22)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
32	1450.0	436.00	321.00	.1303-02	.1572-02	.1572-02	.9000	.3162-04	.3816-04	.2335-01	.1809	527.2
32	1450.0	468.20	322.00	.5607-02	.6767-02	.6767-02	.9000	.1361-03	.1642-03	.1005	.6839	527.3
32	1450.0	511.10	323.00	.4350-02	.5249-02	.5249-02	.9000	.1055-03	.1274-03	.7799-01	.7011	526.8
32	1450.0	526.60	325.00	.5719-02	.6902-02	.6902-02	.9000	.1388-03	.1675-03	.1025	.8528	527.2
32	1500.0	437.00	327.00	.7625-03	.9196-03	.9196-03	.9000	.1850-04	.2232-04	.1371-01	.1064	524.7
32	1500.0	470.40	328.00	.3137-02	.3783-02	.3783-02	.9000	.7612-04	.9180-04	.5639-01	.3524	524.8
32	1500.0	514.00	329.00	.4568-02	.5511-02	.5511-02	.9000	.1109-03	.1337-03	.8205-01	.5952	525.5
32	1500.0	532.30	331.00	.4162-02	.5020-02	.5020-02	.9000	.1010-03	.1218-03	.7483-01	.4951	524.8
32	1500.0	539.40	330.00	.4958-02	.5982-02	.5982-02	.9000	.1203-03	.1451-03	.8901-01	.6456	525.8
32	1525.0	424.00	332.00	.2963-03	.3574-03	.3574-03	.9000	.7189-05	.8672-05	.5322-02	.4127-01	525.4
32	1525.0	431.00	333.00	.7186-03	.8667-03	.8667-03	.9000	.1744-04	.2103-04	.1291-01	.8544-01	525.1
32	1525.0	440.00	334.00	.1058-02	.1276-02	.1276-02	.9000	.2568-04	.3096-04	.1905-01	.1225	523.8
32	1525.0	493.00	335.00	.4341-02	.5233-02	.5233-02	.9000	.1053-03	.1270-03	.7818-01	.6069	523.5
32	1545.0	434.00	338.00	.7403-03	.8926-03	.8926-03	.9000	.1796-04	.2166-04	.1333-01	.1111	523.9
32	1545.0	443.00	339.00	.1038-02	.1251-02	.1251-02	.9000	.2512-04	.3037-04	.1869-01	.1079	523.7



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2589

OH84B 60-0 OMS POD

(R4US22)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
73	2.006	7.980	40.03	- 1056-02	434 9	1300.	94.62	.4527-01	2.018	3805.	.1291-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
73	.3503-01	.2867-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
73	1325.0	428.60	298.00	.1489-02	.1793-02	.1793-02	.9000	.5214-04	.6282-04	.3988-01	.2975	534.9
73	1325.0	489.20	299.00	.4843-02	.5830-02	.5830-02	.9000	.1696-03	.2042-03	.1302	.8842	532.2
73	1325.0	506 70	301 00	.3276-01	.3949-01	.3949-01	.9000	.1148-02	.1383-02	.8754	6.991	536.9
73	1325.0	511 30	300 00	.3077-01	.3709-01	.3709-01	.9000	.1078-02	.1299-02	.8221	6.127	537.0
73	1350.0	440.40	302.00	.3258-02	.3936-02	.3936-02	.9000	.1145-03	.1379-03	.8765-01	.8178	533.9
73	1350.0	458 60	303.00	.6987-02	.8414-02	.8414-02	.9000	.2447-03	.2947-03	.1874	1.399	533.8
73	1350.0	498.50	304 00	.5362-02	.6453-02	.6453-02	.9000	.1878-03	.2260-03	.1445	1.013	530.6
73	1350 0	515 50	306.00	.2502-01	.3014-01	.3014-01	.9000	.8764-03	.1056-02	.6705	4.841	534.7
73	1350.0	524.40	305 00	.1317-01	.1585-01	.1585-01	.9000	.4613-03	.5552-03	.3543	2.739	531.5
73	1375.0	421.60	308 00	.1910-02	.2303-02	.2303-02	.9000	.6690-04	.8066-04	.5099-01	.7122	537.6
73	1375.0	440.00	309.00	.5171-02	.6228-02	.6228-02	.9000	.1811-03	.2182-03	.1387	1 350	534.0
73	1375 0	460 00	310 00	.7372-02	.8874-02	.8874-02	.9000	.2582-03	.3108-03	.1984	1.271	531.4
73	1375.0	503 40	311 00	.6935-02	.8341-02	.8341-02	.9000	.6249-03	.2922-03	.1873	1.502	528.7
73	1375.0	531 00	312 00	.7938-02	.9547-02	.9547-02	.9000	.2781-03	.3344-03	.2144	1.553	528.5
73	1400.0	523.40	313 00	.1167-01	.1404-01	.1404-01	.9000	.4086-03	.4918-03	.3141	2 609	530.9
73	1425.0	415 10	315 00	.1880-02	.2265-02	.2265-02	.9000	.6586-04	.7935-04	.5033-01	.3633	535.4
73	1425 0	437 70	316 00	.371-02	.3817-02	.3817-02	.9000	.1111-03	.1337-03	.8523-01	.6367	532.2
73	1425 0	466 30	317 00	.9449-02	.1137-01	.1137-01	.9000	.3310-03	.3983-03	.2546	1.503	530.6
73	1425.0	508 60	318.00	.5308-02	.6385-02	.6385-02	.9000	.1859-03	.2236-03	.1433	1.192	528.7
73	1425 0	536 50	319 00	.4700-02	.5651-02	.5651-02	.9000	.1646-03	.1980-03	.1270	.9510	528 0
73	1450.0	418 20	320 00	.1023-02	.1232-02	.1232-02	.9000	.3585-04	.4317-04	.2746-01	.2674	533.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2590

OH84B 60-0 OMS POD

(R4US22)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
73	1450.0	436.00	321.00	.3261-02	.3925-02	.3925-02	.9000	.1142-03	.1375-03	.8775-01	.6785	531.4
73	1450.0	468.20	322.00	.9627-02	.1158-01	.1158-01	.9000	.3372-03	.4057-03	.2595	1.764	530.1
73	1450.0	511.10	323.00	.3271-02	.3933-02	.3933-02	.9000	.1146-03	.1378-03	.8849-01	.7952	527.5
73	1450.0	526.60	325.00	.4572-02	.5497-02	.5497-02	.9000	.1601-03	.1925-03	.1237	1.029	527.4
73	1500.0	437.00	327.00	.1940-02	.2332-02	.2332-02	.9000	.6796-04	.8170-04	.5252-01	.4070	526.9
73	1500.0	470.40	328.00	.6384-02	.7674-02	.7674-02	.9000	.2236-03	.2688-03	.1728	1.079	526.8
73	1500.0	514.00	329.00	.3657-02	.4396-02	.4396-02	.9000	.1281-03	.1540-03	.9912-01	.7189	526.0
73	1500.0	532.30	331.00	.3593-02	.4316-02	.4316-02	.9000	.1259-03	.1512-03	.9765-01	.6464	523.8
73	1500.0	539.40	330.00	.4312-02	.5182-02	.5182-02	.9000	.1510-03	.1815-03	.1163	.8481	525.6
73	1525.0	424.00	332.00	.5097-03	.6125-03	.6125-03	.9000	.1785-04	.2145-04	.1383-01	.1072	525.2
73	1525.0	431.00	333.00	.1308-02	.1572-02	.1572-02	.9000	.4582-04	.5506-04	.3549-01	.2348	525.2
73	1525.0	440.00	334.00	.3394-02	.4079-02	.4079-02	.9000	.1189-03	.1429-03	.9205-01	.5915	525.4
73	1525.0	493.00	335.00	.7550-02	.9073-02	.9073-02	.9000	.2644-03	.3178-03	.2046	1.587	525.8
73	1545.0	434.00	338.00	.1192-02	.1432-02	.1432-02	.9000	.4175-04	.5017-04	.3233-01	.2693	525.4
73	1545.0	443.00	339.00	.2872-02	.3451-02	.3451-02	.9000	.1006-03	.1209-03	.7786-01	.4490	525.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2591

OH84B 60-0 OMS POD

(R4US22)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
82	3.020	7.990	40.06	-.1434-06	669.7	1317.	95.63	.6916-01	3.091	3830.	.1952-02	.7696-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
82	.4344-01	.2335-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
82	1325.0	428.60	298.00	.1857-02	.2233-02	.2233-02	.9000	.8066-04	.9701-04	.6300-01	.4699	535.5
82	1325.0	489.20	299.00	.4185-02	.5031-02	.5031-02	.9000	.1818-03	.2186-03	.1424	.9661	533.7
82	1325.0	506.70	301.00	.2559-01	.3080-01	.3080-01	.9000	.1112-02	.1338-02	.8655	6.907	538.2
82	1325.0	511.30	300.00	.2930-01	.3529-01	.3529-01	.9000	.1273-02	.1533-02	.9881	7.351	540.4
82	1350.0	440.40	302.00	.3495-02	.4202-02	.4202-02	.9000	.1518-03	.1826-03	.1187	1.107	534.7
82	1350.0	457.60	303.00	.7969-02	.9584-02	.9584-02	.9000	.3462-03	.4164-03	.2705	2.017	535.4
82	1350.0	453.50	304.00	.6032-02	.7247-02	.7247-02	.9000	.2621-03	.3149-03	.2057	1.441	531.7
82	1350.0	512.70	306.00	.2073-01	.2494-01	.2494-01	.9000	.9007-03	.1083-02	.7031	5.073	536.1
82	1350.0	524.40	305.00	.1203-01	.1446-01	.1446-01	.9000	.5228-03	.6283-03	.4098	3.166	532.9
82	1375.0	421.60	308.00	.2096-02	.2523-02	.2523-02	.9000	.9105-04	.1096-03	.7085-01	.9893	538.5
82	1375.0	440.00	309.00	.5496-02	.6610-02	.6610-02	.9000	.2388-03	.2872-03	.1865	1.815	535.4
82	1375.0	460.00	310.00	.7435-02	.8936-02	.8936-02	.9000	.3230-03	.3882-03	.2532	1.621	532.8
82	1375.0	503.40	311.00	.7880-02	.9465-02	.9465-02	.9000	.3424-03	.4112-03	.2693	2.158	530.2
82	1375.0	531.00	312.00	.6608-02	.7935-02	.7935-02	.9000	.2871-03	.3447-03	.2261	1.637	529.1
82	1400.0	523.40	313.00	.1031-01	.1238-01	.1238-01	.9000	.4477-03	.5380-03	.3513	2.917	532.0
82	1425.0	415.10	315.00	.2606-02	.3135-02	.3135-02	.9000	.1132-03	.1362-03	.8833-01	.6372	536.4
82	1425.0	437.70	316.00	.4903-02	.5894-02	.5894-02	.9000	.2130-03	.2561-03	.1668	1.245	533.6
82	1425.0	466.30	317.00	.1125-01	.1352-01	.1352-01	.9000	.4888-03	.5873-03	.3836	2.262	531.9
82	1425.0	508.60	318.00	.6287-02	.7552-02	.7552-02	.9000	.2731-03	.3281-03	.2147	1.783	530.7
82	1425.0	536.50	319.00	.4120-02	.4946-02	.4946-02	.9000	.1790-03	.2149-03	.1411	1.056	528.3
82	1450.0	418.20	320.00	.1684-02	.2025-02	.2025-02	.9000	.7316-04	.8798-04	.5721-01	.5568	534.7

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OH84B MODEL 60-0 IN THE AFDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US22)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
82	1450.0	436.00	321.00	.4712-02	.5663-02	.5663-02	.9000	.2047-03	.2460-03	.1605	1.240	532.8
82	1450.0	468.20	322.00	.1125-01	.1352-01	.1352-01	.9000	.4889-03	.5875-03	.3835	2.604	532.3
82	1450.0	511.10	323.00	.3988-02	.4788-02	.4788-02	.9000	.1733-03	.2080-03	.1365	1.226	528.7
82	1450.0	526.60	325.00	.3540-02	.4250-02	.4250-02	.9000	.1538-03	.1846-03	.1213	1.009	528.0
82	1500.0	437.00	327.00	.2787-02	.3347-02	.3347-02	.9000	.1211-03	.1454-03	.9543-01	.7389	528.6
82	1500.0	470.40	328.00	.8781-02	.1054-01	.1054-01	.9000	.3815-03	.4581-03	.3004	1.873	529.2
82	1500.0	514.00	329.00	.3681-02	.4418-02	.4418-02	.9000	.1599-03	.1919-03	.1262	.9149	527.3
82	1500.0	532.30	331.00	.3121-02	.3743-02	.3743-02	.9000	.1356-03	.1626-03	.1074	.7109	524.5
82	1500.0	539.40	330.00	.3630-02	.4356-02	.4356-02	.9000	.1577-03	.1893-03	.1246	.9038	526.4
82	1525.0	424.00	332.00	.9607-03	.1153-02	.1153-02	.9000	.4174-04	.5008-04	.3298-01	.2556	526.5
82	1525.0	431.00	333.00	.1848-02	.2217-02	.2217-02	.9000	.8028-04	.9633-04	.6341-01	.4191	526.8
82	1525.0	440.00	334.00	.4129-02	.4955-02	.4955-02	.9000	.1794-03	.2153-03	.1416	.9088	527.4
82	1525.0	493.00	335.00	.9588-02	.1151-01	.1151-01	.9000	.4165-03	.5001-03	.3284	2.543	528.3
82	1545.0	434.00	338.00	.1889-02	.2267-02	.2267-02	.9000	.8208-04	.9851-04	.6479-01	.5391	527.3
82	1545.0	443.00	339.00	.3549-02	.4259-02	.4259-02	.9000	.1542-03	.1850-03	.1217	.7011	527.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2593

OH84B 60-0 OMS POD

(R4US22)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVEN = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
145	3.684	8.000	40.10	- 1083-02	853.6	1353	98.02	.8744-01	3.917	3883.	.2408-02	.7888-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
145	4914-01	.2108-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
145	1325 0	428 60	298.00	.1941-02	.2328-02	.2328-02	.9000	.9536-04	.1144-03	.7747-01	.5764	540.3
145	1325 0	489.20	299.00	.3957-02	.4743-02	.4743-02	.9000	.1945-03	.2331-03	.1588	1.076	536.0
145	1325.0	506.70	301.00	.2452-01	.2943-01	.2943-01	.9000	.1205-02	.1446-02	.9775	7.787	541.5
145	1325 0	511 30	300.00	.2932-01	.3521-01	.3521-01	.9000	.1441-02	.1730-02	1.167	8.671	542.9
145	1350.0	440.40	302.00	.4013-02	.4812-02	.4812-02	.9000	.1972-03	.2365-03	.1606	1.495	538.4
145	1350 0	458.60	303.00	.5838-02	.6999-02	.6999-02	.9000	.2869-03	.3439-03	.2339	1.743	537.3
145	1350.0	498 50	304 00	.6277-02	.7520-02	.7520-02	.9000	.3085-03	.3695-03	.2525	1.767	534.1
145	1350.0	515 50	306.00	.1962-01	.2353-01	.2353-01	.9000	.9641-03	.1156-02	.7843	5.650	539.2
145	1350.0	524 40	305 00	.1257-01	.1507-01	.1507-01	.9000	.6177-03	.7404-03	.5044	3.891	536.1
145	1375.0	421 60	308 00	.2194-02	.2634-02	.2634-02	.9000	.1078-03	.1294-03	.8729-01	1.216	543.1
145	1375.0	440 00	309 00	.5963-02	.7151-02	.7151-02	.9000	.2930-03	.3514-03	.2386	2.317	538.5
145	1375 0	460 00	310 00	.8423-02	.1009-01	.1009-01	.9000	.4139-03	.4960-03	.3383	2.163	535.5
145	1375 0	503 40	311 00	.8162-02	.9776-02	.9776-02	.9000	.4011-03	.4804-03	.3286	2.629	533.4
145	1375 0	531 00	312 00	.6806-02	.8151-02	.8151-02	.9000	.3345-03	.4006-03	.2741	1.981	533 0
145	1400.0	523 40	313 00	.9226-02	.1105-01	.1105-01	.9000	.4534-03	.5432-03	.3710	3.076	534 4
145	1425.0	415 10	315 00	.2214-02	.2657-02	.2657-02	.9000	.1088-03	.1306-03	.8830-01	.6355	541.0
145	1425 0	437.70	316 00	.3991-02	.4784-02	.4784-02	.9000	.1961-03	.2351-03	.1601	1.193	536.5
145	1425 0	466 30	317.00	.1110-01	.1330-01	.1330-01	.9000	.5455-03	.6536-03	.4464	2.630	534.4
145	1425 0	508 60	318 00	.5423-02	.6494-02	.6494-02	.9000	.2665-03	.3191-03	.2185	1.813	532.7
145	1425 0	536 50	319.00	.4109-02	.4920-02	.4920-02	.9000	.2019-03	.2418-03	.1658	1.239	531 4
145	1450 0	418 20	320 00	.1533-02	.1839-02	.1839-02	.9000	.7533-04	.9035-04	.6128-01	.5951	539.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US22)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
145	1450.0	436.00	321.00	4368-02	.5236-02	.5236-02	.9000	.2147-03	.2573-03	.1753	1.352	536.2
145	1450 0	468.20	322.00	.1123-01	.1346-01	.1346-01	.9000	.5519-03	.6614-03	.4512	3.060	535.2
145	1450.0	511.10	323.00	.3479-02	.4165-02	.4165-02	.9000	.1710-03	.2047-03	.1405	1.260	531.0
145	1450.0	526.60	325 00	2769-02	.3315-02	.3315-02	.9000	.1361-03	.1629-03	.1118	.9282	531.3
145	1500 0	437 00	327 00	2442-02	.2924-02	.2924-02	.9000	.1200-03	.1437-03	.9849-01	.7613	532.0
145	1500.0	470 40	328.00	.8041-02	.9627-02	.9627-02	.9000	.3951-03	.4731-03	.3245	2.021	531.4
145	1500.0	514 00	329 00	.4130-02	.4943-02	.4943-02	.9000	.2030-03	.2429-03	.1669	1.208	530.1
145	1500.0	532 30	331.00	.3525-02	.4217-02	.4217-02	.9000	.1732-03	.2072-03	.1429	.9442	527.8
145	1500 0	539 40	330 00	.4364-02	.5222-02	.5222-02	.9000	.2144-03	.2566-03	.1766	1.278	529.4
145	1525 0	424 00	332.00	.1222-02	.1463-02	.1463-02	.9000	.6007-04	.7190-04	.4941-01	.3823	530.1
145	1525 0	431 00	333.00	.1835-02	.2197-02	.2197-02	.9000	.9018-04	.1079-03	.7413-01	.4891	530.6
145	1525.0	440.00	334.00	.3207-02	.3839-02	.3839-02	.9000	.1576-03	.1887-03	.1295	.8299	530.9
145	1525.0	493.00	335.00	.9246-02	.1107-01	.1107-01	.9000	.4544-03	.5441-03	.3726	2.879	532.7
145	1545.0	434 00	338.00	2219-02	.2656-02	.2656-02	.9000	.1090-03	.1305-03	.8961-01	.7444	530.7
145	1545 0	443 00	339 00	2960-02	.3543-02	.3543-02	.9000	.1455-03	.1741-03	.1197	.6884	530.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US25)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
20	.5050	7.900	40 03	1.041	100.6	1251.	92.77	.1118-01	.4882	3730.	.3252-03	.7465-07

RUN NUMBER	HREF BTU/ R FT2SEC	CTN NO REF(R) = 0175
20	.1711-01	.5691-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
20	1325 0	428.60	298.00	.9784-03	.1184-02	.1184-02	.9000	.1674-04	.2026-04	.1208-01	.9035-01	529.4
20	1325 0	489 20	299.00	.1097-02	.1314-02	.1314-02	.9000	.1860-04	.2249-04	.1347-01	.9174-01	526.6
20	1325 0	506.70	301.00	.1496-01	.1610-01	.1810-01	.9000	.2561-03	.3097-03	.1852	1.485	527.7
20	1325 0	511.30	300.00	.1322-01	.1599-01	.1599-01	.9000	.2263-03	.2736-03	.1635	1.224	528.1
20	1350 0	440 40	302 00	.1013-02	.1225-02	.1225-02	.9000	.1734-04	.2097-04	.1251-01	.1171	528.8
20	1350 0	458 60	303.00	.3272-02	.3956-02	.3956-02	.9000	.5599-04	.6771-04	.4047-01	3030	527.9
20	1350 0	498.50	304 00	.2671-02	.3228-02	.3228-02	.9000	.4571-04	.5525-04	.3313-01	.2328	525.9
20	1350 0	515 50	306 00	.1538-01	.1860-01	.1860-01	.9000	.2632-03	.3183-03	.1902	1.378	528.1
20	1350 0	524 40	305 00	.9707-02	.1174-01	.1174-01	.9000	.1661-03	.2009-03	.1202	.9308	527.4
20	1375 0	421 60	308.00	.2431-03	.2942-03	.2942-03	.9000	.4160-05	.5036-05	.2994-02	.4196-01	531.1
20	1375 0	440 00	309 00	.1361-02	.1646-02	.1646-02	.9000	.2329-04	.2817-04	.1682-01	.1642	528 5
20	1375 0	460 00	310.00	.4327-02	.5231-02	.5231-02	.9000	.7405-04	.8952-04	.5359-01	.3441	527.0
20	1375 0	503.40	311.00	.2371-02	.2865-02	.2865-02	.9000	.4058-04	.4903-04	.2947-01	.2368	524.5
20	1375 0	531 00	312.00	.6962-02	.8413-02	.8413-02	.9000	.1192-03	.1440-03	.8643-01	.6271	525.3
20	1400 0	523 40	313 00	.8348-02	.1009-01	.1009-01	.9000	.1429-03	.1727-03	.1034	.8609	526.8
20	1425 0	415 10	315 00	.8161-03	.9875-03	.9875-03	.9000	.1397-04	.1690-04	.1007-01	.7287-01	529.9
20	1425 0	437 70	316 00	.3782-02	.4572-02	.4572-02	.9000	.6472-04	.7824-04	.4683-01	.3508	527.0
20	1425 0	466.30	317 00	.4533-02	.5477-02	.5477-02	.9000	.7757-04	.9374-04	.5625-01	.3329	525.6
20	1425 0	508 60	318 00	.2816-02	.3402-02	.3402-02	.9000	.4819-04	.5823-04	.3498-01	.2914	524 9
20	1425 0	536 50	319 00	.5433-02	.6565-02	.6565-02	.9000	.9299-04	.1124-03	.6745-01	.5056	525 3
20	1450 0	418 20	320 00	.8377-03	.1013-02	.1013-02	.9000	.1434-04	.1734-04	.1035-01	.1010	528.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2596

OH84B 60-0 OMS POD

(R4US25)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R	H(TAW) BTU/R	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
20	1450.0	436.00	321.00	.1345-02	.1625-02	.1625-02	.9000	.2301-04	.2782-04	.1666-01	.1291	526.7
20	1450 0	468.20	322.00	.3134-02	.3787-02	.3787-02	.9000	.5364-04	.6481-04	.3892-01	.2653	525.0
20	1450.0	511.10	323 00	.3185-02	.3848-02	.3848-02	.9000	.5451-04	.6585-04	.3959-01	.3563	524.4
20	1450 0	526.60	325 00	.6379-02	.7708-02	.7708-02	.9000	.1092-03	.1319-03	.7918-01	.6595	525.4
20	1500.0	437 00	327.00	.7646-03	.9235-03	.9235-03	.9000	.1309-04	.1580-04	.9511-02	.7382-01	523.8
20	1500.0	470 40	328.00	.2165-02	.2614-02	.2614-02	.9000	.3705-04	.4474-04	.2695-01	.1685	523.4
20	1500 0	514 00	329 00	.4603-02	.5559-02	.5559-02	.9000	.7877-04	.9514-04	.5727-01	.4158	523.7
20	1500.0	532 30	331.00	.5351-02	.6460-02	.6460-02	.9000	.9157-04	.1106-03	.6669-01	.4418	522.4
20	1500 0	539 40	330 00	.4497-02	.5431-02	.5431-02	.9000	.7696-04	.9295-04	.5597-01	.4064	523.5
20	1525 0	424 00	332.00	.7955-03	.9610-03	.9610-03	.9000	.1362-04	.1645-04	.9893-02	.7677-01	524 1
20	1525 0	431 00	333 00	.9606-03	.1160-02	.1160-02	.9000	.1644-04	.1985-04	.1195-01	.7913-01	523.7
20	1525 0	440 00	334 00	.1016-02	.1227-02	.1227-02	.9000	.1740-04	.2100-04	.1267-01	.8151-01	522.6
20	1525.0	493 00	335 00	.2750-02	.3320-02	.3320-02	.9000	.4707-04	.5681-04	.3432-01	.2667	521.5
20	1545 0	434 00	338.00	.9674-03	.1168-02	.1168-02	.9000	.1656-04	.1999-04	.1204-01	.1004	523.2
20	1545 0	443.00	339 00	.1253-02	.1513-02	.1513-02	.9000	.2145-04	.2590-04	.1561-01	.9012-01	523.0



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2597

OH84B 60-0 OMS POD

(R4US25)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
35	1.011	7.940	40 05	1.018	204.7	1254.	92.12	.2202-01	.9718	3736.	.6452-03	.7413-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
35	.2416-01	.4041-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
35	1325.0	428.60	298 00	.1614-02	.1952-02	.1952-02	.9000	.3898-04	.4714-04	.2822-01	.2111	529.7
35	1325.0	489.20	299.00	.6592-02	.7972-02	.7972-02	.9000	.1592-03	.1926-03	.1154	.7847	529.2
35	1325.0	506.70	301.00	.1772-01	.2143-01	.2143-01	.9000	.4281-03	.5177-03	.3100	2.484	529.6
35	1325.0	511.30	300.00	.2968-01	.3593-01	.3593-01	.9000	.7169-03	.8678-03	.5170	3.862	532.5
35	1350.0	440 40	302.00	.2624-02	.3173-02	.3173-02	.9000	.6337-04	.7664-04	.4590-01	.4293	529.3
35	1350 0	458.60	303 00	.4305-02	.5206-02	.5206-02	.9000	.1040-03	.1258-03	.7533-01	.5636	529.2
35	1350.0	498.50	304.00	.6956-02	.8410-02	.8410-02	.9000	.1680-03	.2031-03	.1219	.8553	528.4
35	1350 0	515.50	306.00	.2115-01	.2558-01	.2558-01	.9000	.5108-03	.6179-03	.3693	2.672	530.7
35	1350.0	524 40	305.00	.2102-01	.2543-01	.2543-01	.9000	.5078-03	.6143-03	.3673	2.841	530 4
35	1375 0	421 60	308 00	.5225-03	.6321-03	.6321-03	.9000	.1262-04	.1527-04	.9122-02	.1279	530.9
35	1375 0	440 00	309.00	.2392-02	.2892-02	.2892-02	.9000	.5777-04	.6986-04	.4184-01	.4083	529 3
35	1375 0	460 00	310 00	.5636-02	.6815-02	.6815-02	.9000	.1361-03	.1646-03	.9871-01	.6332	528 6
35	1375.0	503 40	311.00	.4940-02	.5970-02	.5970-02	.9000	.1193-03	.1442-03	.8675-01	.6963	526.7
35	1375 0	531 00	312 00	.1120-01	.1354-01	.1354-01	.9000	.2706-03	.3270-03	.1965	1.424	527.4
35	1400 0	523 40	313 00	.1192-01	.1442-01	.1442-01	.9000	.2880-03	.3482-03	.2087	1.735	528 9
35	1425 0	415.10	315.00	.9608-03	.1162-02	.1162-02	.9000	.2321-04	.2807-04	.1680-01	.1216	530.0
35	1425 0	437 70	316 00	.7306-04	.8832-04	.8832-04	.9000	.1765-05	.2133-05	.1281-02	.9592-02	527.8
35	1425 0	466 30	317 00	.4909-02	.5933-02	.5933-02	.9000	.1186-03	.1433-03	.8613-01	.5093	527 3
35	1425 0	508 60	318 00	.5566-02	.6727-02	.6727-02	.9000	.1344-03	.1625-03	.9765-01	.8126	527.3
35	1425 0	536.50	319 00	.7542-02	.9114-02	.9114-02	.9000	.1822-03	.2201-03	.1324	.9918	526.9
35	1450 0	418 20	320 00	.1370-02	.1656-02	.1656-02	.9000	.3309-04	.4001-04	.2398-01	.2340	529.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2598

OH84B 60-0 OMS POD

(R4US25)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
35	1450.0	436.00	321.00	.1374-02	.1660-02	.1660-02	.9000	.3318-04	.4010-04	.2409-01	.1866	527.6
35	1450.0	468.20	322.00	.4583-02	.5539-02	.5539-02	.9000	.1107-03	.1338-03	.8046-01	.5479	526.9
35	1450.0	511.10	323.00	.5883-02	.7109-02	.7109-02	.9000	.1421-03	.1717-03	.1033	.9285	526.8
35	1450.0	526.60	325.00	.7547-02	.9120-02	.9120-02	.9000	.1823-03	.2203-03	.1325	1.103	526.9
35	1500 0	437.00	327.00	.1158-02	.1399-02	.1399-02	.9000	.2798-04	.3380-04	.2039-01	.1581	525.1
35	1500.0	470.40	328.00	.3107-02	.3753-02	.3753-02	.9000	.7506-04	.9065-04	.5470-01	.3418	524.9
35	1500 0	514 00	329.00	.7487-02	.9046-02	.9046-02	.9000	.1809-03	.2185-03	.1316	.9542	526.2
35	1500.0	532 30	331.00	.5648-02	.6820-02	.6820-02	.9000	.1364-03	.1647-03	.9952-01	.6587	524.2
35	1500 0	539 40	330.00	.5827-02	.7038-02	.7038-02	.9000	.1407-03	.1700-03	.1025	.7435	525.5
35	1525 0	424.00	332.00	.5726-03	.6915-03	.6915-03	.9000	.1383-04	.1670-04	.1008-01	.7818-01	525.0
35	1525.0	431.00	333.00	.1073-02	.1296-02	.1296-02	.9000	.2593-04	.3131-04	.1890-01	.1250	524.8
35	1525.0	440.00	334.00	.1540-02	.1859-02	.1859-02	.9000	.3719-04	.4490-04	.2713-01	.1745	524.0
35	1525 0	493.00	335.00	.6033-02	.7285-02	.7285-02	.9000	.1457-03	.1760-03	.1063	.8246	524.4
35	1545.0	434.00	338.00	.1517-02	.1832-02	.1832-02	.9000	.3664-04	.4425-04	.2672-01	.2226	524.6
35	1545 0	443.00	339.00	.1880-02	.2270-02	.2270-02	.9000	.4541-04	.5483-04	.3311-01	.1911	524.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2599

OH84B 60-0 OMS POD

(R4USE)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 1.000 ELEVON = .0000  
 BDFLAP = .0000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
70	2.009	7.980	40.07	1.025	435.0	1299.	94.54	.4529-01	2.019	3804.	.1293-02	.7608-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
70	.3503-01	2865-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
70	1325.0	428.60	298 00	.1593-02	.1920-02	.1920-02	.9000	.5581-04	.6724-04	.4263-01	.3181	534.8
70	1325.0	489 20	299.00	.4621-02	.5565-02	.5565-02	.9000	.1619-03	.1949-03	.1240	.8420	532.7
70	1325.0	506.70	301.00	.3338-01	.4024-01	.4024-01	.9000	.1169-02	.1410-02	.8899	7.104	537.5
70	1325.0	511.30	300 00	.3486-01	.4205-01	.4205-01	.9000	.1221-02	.1473-02	.9278	6.908	538.8
70	1350.0	440.40	302 00	.3428-02	.4130-02	.4130-02	.9000	.1201-03	.1446-03	.9175-01	.8558	534.5
70	1350.0	458.60	303.00	.4006-02	.4825-02	.4825-02	.9000	.1403-03	.1690-03	.1074	.8018	533.4
70	1350.0	498.50	304.00	.5482-02	.6598-02	.6598-02	.9000	.1920-03	.2311-03	.1475	1.034	530.5
70	1350 0	515.50	306 00	.2365-01	.2849-01	.2849-01	.9000	.8283-03	.9979-03	.6326	4.568	534.9
70	1350 0	524 40	305 00	.1608-01	.1936-01	.1936-01	.9000	.5631-03	.6781-03	.4312	3.331	533.0
70	1375 0	421 60	308 00	.1470-02	.1772-02	.1772-02	.9000	.5148-04	.6206-04	.3922-01	.5480	536.9
70	1375 0	440.00	309.00	.4637-02	.5585-02	.5585-02	.9000	.1624-03	.1956-03	.1242	1.209	534.1
70	1375 0	460 00	310 00	.7132-02	.8586-02	.8586-02	.9000	.2498-03	.3008-03	.1916	1.227	531 9
70	1375 0	503 40	311 00	.7234-02	.8704-02	.8704-02	.9000	.2534-03	.3049-03	.1949	1 562	529.4
70	1375 0	531 00	312 00	.9790-02	.1178-01	.1178-01	.9000	.3429-03	.4126-03	.2638	1.909	529.6
70	1400 0	523 40	313.00	.1185-01	.1427-01	.1427-01	.9000	.4152-03	.4998-03	.3185	2 645	531.4
70	1425 0	415 10	315.00	.1335-02	.1609-02	.1609-02	.9000	.4676-04	.5634-04	.3572-01	.2579	534.9
70	1425 0	437 70	316 00	.3937-02	.4741-02	.4741-02	.9000	.1379-03	.1661-03	.1057	.7896	532.3
70	1425.0	466 30	317.00	.7880-02	.9483-02	.9483-02	.9000	.2760-03	.3322-03	.2121	1.252	530.4
70	1425.0	508 60	318 00	.4126-02	.4964-02	.4964-02	.9000	.1445-03	.1739-03	.1112	.9248	529.0
70	1425 0	536 50	319 00	.5224-02	.6283-02	.6283-02	.9000	.1830-03	.2201-03	.1410	1.056	528 1
70	1450 0	418 20	320 00	.9072-03	.1093-02	.1093-02	.9000	.3178-04	.3827-04	.2432-01	.2369	533 2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2600

OH84B 60-0 OMS POD

(R4US25)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
70	1450.0	436.00	321 00	.2547-02	.3065-02	.3065-02	.9000	.8920-04	.1074-03	.6846-01	.5293	531.2
70	1450.0	468.20	322 00	.7899-02	.9505-02	.9505-02	.9000	.2767-03	.3329-03	.2126	1.446	530.1
70	1450.0	511.10	323.00	.2976-02	.3579-02	.3579-02	.9000	.1043-03	.1254-03	.8039-01	.7224	527.6
70	1450.0	526.60	325 00	.4977-02	.5986-02	.5986-02	.9000	.1743-03	.2097-03	.1344	1.118	528.0
70	1500.0	437.00	327.00	.1488-02	.1789-02	.1789-02	.9000	.5211-04	.6266-04	.4022-01	.3116	526.9
70	1500.0	470.40	328.00	.5152-02	.6194-02	.6194-02	.9000	.1804-03	.2170-03	.1392	.8688	527.2
70	1500.0	514.00	329 00	.4074-02	.4897-02	.4897-02	.9000	.1427-03	.1715-03	.1102	.7988	526.5
70	1500.0	532.30	331 00	.3538-02	.4251-02	.4251-02	.9000	.1239-03	.1489-03	.9600-01	.6355	524.1
70	1500.0	539.40	330 00	.4552-02	.5472-02	.5472-02	.9000	.1595-03	.1917-03	.1232	.8936	526.0
70	1525.0	424.00	332 00	.4717-03	.5669-03	.5669-03	.9000	.1652-04	.1986-04	.1277-01	.9905-01	525.6
70	1525.0	431.00	333.00	.8975-03	.1079-02	.1079-02	.9000	.3144-04	.3778-04	.2431-01	.1608	525.4
70	1525.0	440.00	334.00	.2143-02	.2575-02	.2575-02	.9000	.7505-04	.9019-04	.5804-01	.3729	525.3
70	1525.0	493.00	335.00	.6232-02	.7490-02	.7490-02	.9000	.2183-03	.2624-03	.1688	1.309	525.5
70	1545.0	434.00	338 00	.9501-03	.1142-02	.1142-02	.9000	.3328-04	.4000-04	.2572-01	.2142	525.7
70	1545.0	443.00	339.00	.1885-02	.2265-02	.2265-02	.9000	.6601-04	.7934-04	.5102-01	.2942	525.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2601

OH84B 60-0 OMS POD

(R4US26)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
23	.5076	7.900	40.00	2.019	101.2	1252.	92.84	.1125-01	.4913	3732.	.3270-03	.7471-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
23	.1717-01	.5676-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
23	1325.0	428 60	298.00	.1401-02	.1694-02	.1694-02	.9000	.2406-04	.2909-04	.1740-01	.1303	528.3
23	1325.0	489 20	299.00	.1067-02	.1290-02	.1290-02	.9000	.1833-04	.2215-04	.1330-01	.9060-01	526.1
23	1325.0	506 70	301.00	.1641-01	.1983-01	.1983-01	.9000	.2818-03	.3405-03	.2043	1.640	526.7
23	1325.0	511 30	300.00	.1738-01	.2101-01	.2101-01	.9000	.2983-03	.3607-03	.2161	1.618	527.5
23	1350.0	440 40	302.00	.5218-03	.6309-03	.6309-03	.9000	.8959-05	.1083-04	.6483-02	.6067-01	528.0
23	1350.0	458 60	303.00	.3020-02	.3650-02	.3650-02	.9000	.5185-04	.6267-04	.3757-01	.2814	527.0
23	1350.0	498 50	304.00	.2984-02	.3606-02	.3606-02	.9000	.5125-04	.6191-04	.3723-01	.2617	525.1
23	1350.0	515 50	306.00	.1883-01	.2276-01	.2276-01	.9000	.3233-03	.3908-03	.2341	1.697	527.4
23	1350.0	524 40	305.00	.1139-01	.1376-01	.1376-01	.9000	.1955-03	.2363-03	.1418	1.100	526.2
23	1375.0	421 60	308.00	.3210-03	.3884-03	.3884-03	.9000	.5512-05	.6668-05	.3977-02	.5576-01	530.1
23	1375.0	440 00	309.00	.1102-02	.1333-02	.1333-02	.9000	.1893-04	.2288-04	.1370-01	.1338	527.8
23	1375.0	460 00	310.00	.3885-02	.4695-02	.4695-02	.9000	.6670-04	.8061-04	.4840-01	.3109	526.1
23	1375.0	503.40	311.00	.2284-02	.2758-02	.2758-02	.9000	.3921-04	.4736-04	.2855-01	.2295	523.7
23	1375.0	531.00	312.00	.7132-02	.8614-02	.8614-02	.9000	.1225-03	.1479-03	.8904-01	.6463	524.5
23	1400.0	523.40	313.00	.9053-02	.1094-01	.1094-01	.9000	.1554-03	.1878-03	.1128	.9394	525.9
23	1425.0	415.10	315.00	.6168-03	.7460-03	.7460-03	.9000	.1059-04	.1281-04	.7656-02	.5545-01	528.8
23	1425.0	437.70	316.00	.1636-02	.1977-02	.1977-02	.9000	.2809-04	.3394-04	.2038-01	.1528	525.9
23	1425.0	466.30	317.00	.3866-02	.4670-02	.4670-02	.9000	.6638-04	.8018-04	.4826-01	.2857	524.6
23	1425.0	508.60	318.00	.2419-02	.2922-02	.2922-02	.9000	.4154-04	.5017-04	.3023-01	.2520	524.0
23	1425.0	536.50	319.00	.5230-02	.6317-02	.6317-02	.9000	.8980-04	.1085-03	.6531-01	.4898	524.4
23	1450.0	418.20	320.00	.6480-03	.7835-03	.7835-03	.9000	.1113-04	.1345-04	.8057-02	.7869-01	527.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2602

OH84B 60-0 OMS POD

(R4US26)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
23	1450.0	436.00	321.00	.1193-02	.1441-02	.1441-02	.9000	.2048-04	.2475-04	.1487-01	.1153	525.7
23	1450.0	468.20	322.00	.2757-02	.3330-02	.3330-02	.9000	.4734-04	.5718-04	.3445-01	.2349	524.1
23	1450.0	511.10	323.00	.2353-02	.2842-02	.2842-02	.9000	.4041-04	.4880-04	.2943-01	.2650	523.4
23	1450.0	526.60	325.00	.5814-02	.7023-02	.7023-02	.9000	.9984-04	.1206-03	.7260-01	.6050	524.5
23	1500.0	437.00	327.00	.6908-03	.8341-03	.8341-03	.9000	.1186-04	.1432-04	.8644-02	.6712-01	523.0
23	1500.0	470.40	328.00	.1713-02	.2068-02	.2068-02	.9000	.2941-04	.3550-04	.2145-01	.1342	522.4
23	1500.0	514.00	329.00	.3496-02	.4221-02	.4221-02	.9000	.6003-04	.7247-04	.4375-01	.3178	522.8
23	1500.0	532.30	331.00	.4657-02	.5621-02	.5621-02	.9000	.7996-04	.9652-04	.5835-01	.3867	521.9
23	1500.0	539.40	330.00	.4180-02	.5047-02	.5047-02	.9000	.7177-04	.8665-04	.5231-01	.3800	522.8
23	1525.0	424.00	332.00	.6746-03	.8146-03	.8146-03	.9000	.1158-04	.1399-04	.8435-02	.6548-01	523.5
23	1525.0	431.00	333.00	.1160-02	.1401-02	.1401-02	.9000	.1992-04	.2406-04	.1452-01	.9613-01	523.1
23	1525.0	440.00	334.00	.1055-02	.1274-02	.1274-02	.9000	.1812-04	.2187-04	.1323-01	.8514-01	521.9
23	1525.0	493.00	335.00	.1324-02	.1597-02	.1597-02	.9000	.2273-04	.2743-04	.1662-01	.1292	520.6
23	1545.0	434.00	338.00	.564-03	.1046-02	.1046-02	.9000	.1488-04	.1796-04	.1085-01	.9051-01	522.4
23	1545.0	443.00	339.00	.054-02	.1321-02	.1321-02	.9000	.1879-04	.2268-04	.1371-01	.7919-01	522.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2603

OH84B 60-0 OMS POD

(R4US26)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
38	1 003	7.940	40 02	2.013	203.6	1256.	92.27	.2190-01	.9666	3739.	.6407-03	.7425-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
38	.2410-01	4056-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
38	1325.0	428 60	298.00	.9492-03	.1148-02	.1148-02	.9000	.2287-04	.2766-04	.1660-01	.1242	529.9
38	1325 0	489.20	299.00	.4214-02	.5094-02	.5094-02	.9000	.1015-03	.1227-03	.7385-01	.5025	528.5
38	1325.0	506.70	301 00	.1842-01	.2227-01	.2227-01	.9000	.4439-03	.5366-03	.3226	2.587	528.8
38	1325 0	511.30	300.00	.3149-01	.3809-01	.3809-01	.9000	.7587-03	.9179-03	.5496	4.108	531.3
38	1350.0	440 40	302 00	.1430-02	.1729-02	.1729-02	.9000	.3446-04	.4166-04	.2502-01	.2340	529.6
38	1350.0	458.60	303 00	.3216-02	.3887-02	.3887-02	.9000	.7748-04	.9366-04	.5632-01	.4215	528.8
38	1350.0	498.50	304 00	.4792-02	.5790-02	.5790-02	.9000	.1155-03	.1395-03	.8415-01	.5909	527.0
38	1350.0	515 50	306 00	.1954-01	.2362-01	.2362-01	.9000	.4708-03	.5692-03	.3419	2 475	529.5
38	1350 0	524.40	305.00	.2062-01	.2493-01	.2493-01	.9000	.4969-03	.6008-03	.3609	2 793	529.5
38	1375 0	421 60	308 00	.5074-03	.6138-03	.6138-03	.9000	.1223-04	.1479-04	.8853-02	.1240	531.6
38	1375.0	440 00	309.00	.1705-02	.2062-02	.2062-02	.9000	.4109-04	.4969-04	.2984-01	.2912	529.5
38	1375 0	460 00	310 00	.3884-02	.4694-02	.4694-02	.9000	.9359-04	.1131-03	.6811-01	.4371	527.9
38	1375 0	503 40	311 00	.3836-02	.4632-02	.4632-02	.9000	.9242-04	.1116-03	.6747-01	.5419	525.6
38	1375 0	531.00	312.00	.1123-01	.1356-01	.1356-01	.9000	.2705-03	.3268-03	.1972	1 430	526.6
38	1400.0	523 40	313 00	.1179-01	.1424-01	.1424-01	.9000	.2840-03	.3432-03	.2067	1 720	527.9
38	1425.0	415 10	315 00	.9705-03	.1174-02	.1174-02	.9000	.2339-04	.2828-04	.1697-01	.1228	530.2
38	1425 0	437 70	316 00	.1506-02	.1820-02	.1820-02	.9000	.3630-04	.4387-04	.2643-01	.1979	527.6
38	1425 0	466 30	317 00	.4098-02	.4950-02	.4950-02	.9000	.9875-04	.1193-03	.7203-01	.4261	526.3
38	1425.0	508 60	318 00	.5482-02	.6622-02	.6622-02	.9000	.1321-03	.1596-03	.9636-01	.8023	526.2
38	1425 0	536 50	319 00	.5539-02	.6690-02	.6690-02	.9000	.1335-03	.1612-03	.9743-01	.7303	525.7
38	1450 0	418 20	320 00	.7938-03	.9597-03	.9597-03	.9000	.1913-04	.2312-04	.1390-01	.1357	529.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2604

OH84B 60-0 OMS POD

(R4US26)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
38	1450.0	436.00	321.00	.1262-02	.1525-02	.1525-02	.9000	.3041-04	.3675-04	.2216-01	.1717	527.1
38	1450.0	468.20	322 00	.3787-02	.4574-02	.4574-02	.9000	.9126-04	.1102-03	.6663-01	.4541	525.5
38	1450 0	511 10	323 00	.5660-02	.6836-02	.6836-02	.9000	.1364-03	.1647-03	.9957-01	.8957	525.6
38	1450 0	526 60	325 00	.6381-02	.7708-02	.7708-02	.9000	.1538-03	.1857-03	.1122	.9341	526.1
38	1500.0	437.00	327 00	.9324-03	.1126-02	.1126-02	.9000	.2247-04	.2712-04	.1644-01	.1276	523.9
38	1500 0	470 40	328.00	.2652-02	.3201-02	.3201-02	9000	.6390-04	.7713-04	.4678-01	.2925	523.5
38	1500 0	514 00	329 00	.6402-02	.7730-02	.7730-02	.9000	.1543-03	.1863-03	.1128	.8186	524 6
38	1500 0	532 30	331 00	.4227-02	.5100-02	.5100-02	.9000	.1018-03	.1229-03	.7465-01	.4945	522.7
38	1500 0	539 40	330 00	.5368-02	.6481-02	.6481-02	9000	.1294-03	.1562-03	.9464-01	.6871	524.1
38	1525 0	424 00	332 00	.4751-03	.5736-03	.5736-03	.9000	.1145-04	.1382-04	.8378-02	.6502-01	523.9
38	1525 0	431 00	333 00	.8431-03	.1018-02	.1018-02	9000	.2032-04	.2452-04	.1487-01	.9843-01	523 8
38	1525.0	440.00	334 00	.1170-02	.1412-02	.1412-02	.9000	.2819-04	.3402-04	.2065-01	.1329	523.0
38	1525 0	493.00	335 00	.3645-02	.4398-02	.4398-02	9000	.8783-04	.1060-03	.6440-01	.5002	522.4
38	1545.0	434.00	338 00	.1004-02	.1212-02	.1212-02	9000	.2420-04	.2921-04	.1773-01	.1479	523 0
38	1545.0	443 00	339 00	.1224-02	.1477-02	.1477-02	.9000	.2949-04	.3559-04	.2161-01	.1248	522.8



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US26)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 2.000 ELEVON = .0000  
 BDFLAP = .0000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
67	2 005	7.980	40 04	2 021	434.1	1299.	94.54	.4519-01	2.014	3804.	.1290-02	.7608-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
67	.3499-01	2868-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
67	1325.0	428.60	298.00	.2036-02	.2454-02	.2454-02	.9000	.7123-04	.8585-04	.5432-01	.4050	536.1
67	1325.0	489.20	299.00	.4391-02	.5290-02	.5290-02	.9000	.1537-03	.1851-03	.1174	.7968	534.3
67	1325.0	506.70	301.00	.2969-01	.3579-01	.3579-01	.9000	.1039-02	.1252-02	.7909	6.314	537.3
67	1325.0	511.30	300.00	.3753-01	.4529-01	.4529-01	.9000	.1313-02	.1585-02	.9961	7.411	540.2
67	1350.0	440 40	302 00	.2955-02	.3561-02	.3561-02	.9000	.1034-03	.1246-03	.7882-01	.7346	536.3
67	1350.0	458 60	303 00	.4310-02	.5193-02	.5193-02	.9000	.1508-03	.1817-03	.1152	.8592	535 0
67	1350.0	498 50	304 00	.5185-02	.6243-02	.6243-02	.9000	.1814-03	.2184-03	.1391	.9740	532.2
67	1350 0	515 50	306 00	.2327-01	.2805-01	.2805-01	.9000	.8144-03	.9814-03	.6213	4.484	535.7
67	1350 0	524 40	305 00	.2045-01	.2464-01	.2464-01	.9000	.7157-03	.8623-03	.5466	4 218	535 0
67	1375 0	421 60	308 00	.1004-02	.1210-02	.1210-02	.9000	.3512-04	.4235-04	.2672-01	.3733	537.8
67	1375 0	440 00	309 00	.3360-02	.4049-02	.4049-02	.9000	.1176-03	.1417-03	.8970-01	.8725	535 8
67	1375 0	460 00	310 00	.6776-02	.8160-02	.8160-02	.9000	.2371-03	.2855-03	.1815	1.162	533 2
67	1375 0	503 40	311 00	.5565-02	.6697-02	.6697-02	.9000	.1947-03	.2343-03	.1497	1.200	530 0
67	1375 0	531 00	312 00	.1225-01	.1474-01	.1474-01	.9000	.4286-03	.5158-03	.3290	2 380	530.9
67	1400 0	523 40	313 00	.1233-01	.1485-01	.1485-01	.9000	.4315-03	.5196-03	.3307	2 744	532.5
67	1425 0	415 10	315 00	.1196-02	.1442-02	.1442-02	.9000	.4185-04	.5044-04	.3193-01	.2304	535 8
67	1425 0	437 70	316 00	.2954-02	.3558-02	.3558-02	.9000	.1034-03	.1245-03	.7914-01	.5910	533 1
67	1425 0	466 30	317 00	.7106-02	.8554-02	.8554-02	.9000	.2487-03	.2993-03	.1908	1 126	531.2
67	1425 0	508 60	318 00	.6390-02	.7690-02	.7690-02	.9000	.2236-03	.2691-03	.1718	1.427	530 4
67	1425 0	536 50	319 00	.4937-02	.5939-02	.5939-02	.9000	.1727-03	.2078-03	.1329	.9940	529 5
67	1425 0	418 20	320 00	.7265-03	.8752-03	.8752-03	.9000	.2542-04	.3062-04	.1943-01	.1892	534 2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US26)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
67	1450.0	436.00	321.00	.1987-02	.2392-02	.2392-02	.9000	.6953-04	.8371-04	.5330-01	.4119	532.1
67	1450.0	468.20	322.00	.6537-02	.7868-02	.7868-02	.9000	.2287-03	.2753-03	.1757	1.194	530.7
67	1450.0	511.10	323.00	.5302-02	.6378-02	.6378-02	.9000	.1855-03	.2232-03	.1428	1.282	529.1
67	1450.0	526.60	325.00	.5089-02	.6122-02	.6122-02	.9000	.1781-03	.2142-03	.1370	1.139	529.1
67	1500.0	437.00	327.00	.1144-02	.1376-02	.1376-02	.9000	.4003-04	.4814-04	.3087-01	.2391	527.6
67	1500.0	470.40	328.00	.4268-02	.5133-02	.5133-02	.9000	.1494-03	.1796-03	.1152	.7187	527.5
67	1500.0	514.00	329.00	.5510-02	.6625-02	.6625-02	.9000	.1928-03	.2318-03	.1487	1.078	527.4
67	1500.0	532.30	331.00	.3323-02	.3994-02	.3994-02	.9000	.1163-03	.1397-03	.8991-01	.5947	525.4
67	1500.0	539.40	330.00	.4833-02	.5811-02	.5811-02	.9000	.1691-03	.2033-03	.1304	.9454	527.3
67	1525.0	424.00	332.00	.5504-03	.6617-03	.6617-03	.9000	.1926-04	.2315-04	.1487-01	.1152	526.7
67	1525.0	431.00	333.00	.8493-03	.1021-02	.1021-02	.9000	.2972-04	.3573-04	.2295-01	.1517	526.4
67	1525.0	440.00	334.00	.1788-02	.2149-02	.2149-02	.9000	.6257-04	.7521-04	.4836-01	.3107	525.8
67	1525.0	493.00	335.00	.5103-02	.6133-02	.6133-02	.9000	.1786-03	.2146-03	.1380	1.070	525.6
67	1545.0	434.00	338.00	.1030-02	.1238-02	.1238-02	.9000	.3603-04	.4331-04	.2782-01	.2316	526.4
67	1545.0	443.00	339.00	.1477-02	.1776-02	.1776-02	.9000	.5168-04	.6213-04	.3993-01	.2302	526.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2607

OH84B 60-0 OMS POD

(R4US27)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
26	.5059	7.900	40 02	4.008	100.6	1250.	92.69	.1118-01	.4885	3729.	.3256-03	.7459-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
26	.1712-01	.5687-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
26	1325.0	428.60	298.00	.1633-02	.1975-02	.1975-02	.9000	.2796-04	.3381-04	.2018-01	.1511	527.9
26	1325.0	489.20	299.00	.4711-02	.5694-02	.5694-02	.9000	.8063-04	.9746-04	.5834-01	.3975	526.1
26	1325.0	506.70	301.00	.1562-01	.1888-01	.1888-01	.9000	.2674-03	.3232-03	.1935	1.553	526.1
26	1325.0	511.30	300.00	.2340-01	.2829-01	.2829-01	.9000	.4005-03	.4842-03	.2893	2.167	527.1
26	1350.0	440.40	302.00	.1106-02	.1337-02	.1337-02	.9000	.1893-04	.2289-04	.1367-01	.1280	527.4
26	1350.0	458.60	303.00	.3674-02	.4441-02	.4441-02	.9000	.6288-04	.7602-04	.4548-01	.3408	526.4
26	1350.0	498.50	304.00	.6486-02	.7838-02	.7838-02	.9000	.1110-03	.1342-03	.8044-01	.5654	525.2
26	1350.0	515.50	306.00	.1739-01	.2102-01	.2102-01	.9000	.2976-03	.3598-03	.2151	1.560	526.9
26	1350.0	524.40	305.00	.1212-01	.1465-01	.1465-01	.9000	.2075-03	.2508-03	.1502	1.165	525.8
26	1375.0	421.60	308.00	.3123-03	.3779-03	.3779-03	.9000	.5346-05	.6469-05	.3849-02	.5399-01	529.6
26	1375.0	440.00	309.00	.1302-02	.1574-02	.1574-02	.9000	.2229-04	.2695-04	.1610-01	.1573	527.1
26	1375.0	460.00	310.00	.4618-02	.5581-02	.5581-02	.9000	.7904-04	.9553-04	.5724-01	.3678	525.5
26	1375.0	503.40	311.00	.3529-02	.4263-02	.4263-02	.9000	.6041-04	.7297-04	.4386-01	.3526	523.6
26	1375.0	531.00	312.00	.7639-02	.9228-02	.9228-02	.9000	.1308-03	.1580-03	.9485-01	.6885	524.3
26	1400.0	523.40	313.00	.9149-02	.1106-01	.1106-01	.9000	.1566-03	.1893-03	.1134	.9444	525.6
26	1425.0	415.10	315.00	.5008-03	.6058-03	.6058-03	.9000	.8573-05	.1037-04	.6184-02	.4480-01	528.3
26	1425.0	437.70	316.00	.2284-02	.2761-02	.2761-02	.9000	.3910-04	.4726-04	.2831-01	.2122	525.6
26	1425.0	466.30	317.00	.4300-02	.5194-02	.5194-02	.9000	.7359-04	.8891-04	.5339-01	.3161	524.3
26	1425.0	508.60	318.00	.3461-02	.4180-02	.4180-02	.9000	.5923-04	.7156-04	.4298-01	.3583	524.0
26	1425.0	536.50	319.00	.6433-02	.7772-02	.7772-02	.9000	.1101-03	.1330-03	.7985-01	.5989	524.5
26	1450.0	418.20	320.00	.6210-03	.7509-03	.7509-03	.9000	.1063-04	.1285-04	.7681-02	.7504-01	527.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2608

OH84B 60-0 OMS POD

(R4US27)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R - FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
26	1450.0	436.00	321.00	.1190-02	.1438-02	.1438-02	.9000	.2037-04	.2462-04	.1475-01	.1144	525.4
26	1450.0	468.20	322.00	.2908-02	.3513-02	.3513-02	.9000	.4978-04	.6013-04	.3613-01	.2464	523.8
26	1450.0	511.10	323.00	.4316-02	.5213-02	.5213-02	.9000	.7388-04	.8924-04	.5364-01	.4829	523.7
26	1450.0	526.60	325.00	.5994-02	.7242-02	.7242-02	.9000	.1026-03	.1240-03	.7443-01	.6203	524.3
26	1500.0	437.00	327.00	.2753-03	.3325-03	.3325-03	.9000	.4713-05	.5692-05	.3425-02	.2660-01	522.9
26	1500.0	470.40	328.00	.1490-02	.1799-02	.1799-02	.9000	.2550-04	.3079-04	.1854-01	.1160	522.4
26	1500.0	514.00	329.00	.5697-02	.6880-02	.6880-02	.9000	.9751-04	.1178-03	.7085-01	.5146	523.1
26	1500.0	532.30	331.00	.4703-02	.5678-02	.5678-02	.9000	.8050-04	.9718-04	.5858-01	.3882	521.9
26	1500.0	539.40	330.00	.4498-02	.5432-02	.5432-02	.9000	.7699-04	.9298-04	.5596-01	.4065	522.8
26	1525.0	424.00	332.00	.2728-03	.3295-03	.3295-03	.9000	.4669-05	.5640-05	.3391-02	.2632-01	523.5
26	1525.0	431.00	333.00	.4014-03	.4848-03	.4848-03	.9000	.6871-05	.8298-05	.4992-02	.3306-01	523.1
26	1525.0	440.00	334.00	.7624-03	.9205-03	.9205-03	.9000	.1305-04	.1576-04	.9497-02	.6113-01	522.0
26	1525.0	493.00	335.00	.2727-02	.3291-02	.3291-02	.9000	.4667-04	.5633-04	.3401-01	.2644	521.0
26	1545.0	434.00	338.00	.5367-03	.6480-03	.6480-03	.9000	.9186-05	.1109-04	.6679-02	.5572-01	522.5
26	1545.0	443.00	339.00	.7836-03	.9462-03	.9462-03	.9000	.1341-04	.1620-04	.9757-02	.5636-01	522.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2609

OH84B 60-0 OMS POD

(R4US27)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 4.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
41	1.011	7.940	40.00	4.013	204.3	1252.	91.98	.2198-01	.9699	3733.	.6450-03	.7401-07

RUN NUMBER	HREF BTU/ R FT2SLC	STN NO REF(R) = 0175
41	.2413-01	4041-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
41	1325.0	428.60	298.00	.1207-02	.1461-02	.1461-02	.9000	.2913-04	.3524-04	.2102-01	.1572	530.2
41	1325.0	489.20	299.00	.5410-02	.6543-02	.6543-02	.9000	.1705-03	.1578-03	.9434-01	.6419	528.8
41	1325.0	506.70	301.00	.1495-01	.1808-01	.1808-01	.9000	.3607-03	.4361-03	.2609	2.092	528.3
41	1325.0	511.30	300.00	.2630-01	.3183-01	.3183-01	.9000	.6346-03	.7680-03	.4573	3.418	531.0
41	1350.0	440.40	302.00	.1617-02	.1956-02	.1956-02	.9000	.3901-04	.4719-04	.2816-01	.2633	529.8
41	1350.0	458.60	303.00	.4513-02	.5458-02	.5458-02	.9000	.1089-03	.1317-03	.7873-01	.5892	528.6
41	1350.0	498.50	304.00	.6051-02	.7315-02	.7315-02	.9000	.1460-03	.1765-03	.1058	.7427	527.1
41	1350.0	515.50	306.00	.1756-01	.2124-01	.2124-01	.9000	.4236-03	.5124-03	.3061	2.216	529.2
41	1350.0	524.40	305.00	.1695-01	.2049-01	.2049-01	.9000	.4088-03	.4944-03	.2956	2.289	528.7
41	1375.0	421.60	308.00	.4496-03	.5443-03	.5443-03	.9000	.1085-04	.1313-04	.7806-02	.1094	532.0
41	1375.0	440.00	309.00	.2112-02	.2555-02	.2555-02	.9000	.5096-04	.6164-04	.3680-01	.3590	529.6
41	1375.0	460.00	310.00	.5755-02	.6958-02	.6958-02	.9000	.1388-03	.1679-03	.1005	.6449	527.9
41	1375.0	503.40	311.00	.3205-02	.3871-02	.3871-02	.9000	.7731-04	.9340-04	.5617-01	.4512	525.1
41	1375.0	531.00	312.00	.9608-02	.1161-01	.1161-01	.9000	.2318-03	.2801-03	.1682	1.220	526.0
41	1400.0	523.40	313.00	.1172-01	.1418-01	.1418-01	.9000	.2829-03	.3420-03	.2048	1.703	527.8
41	1425.0	415.10	315.00	.8266-03	.1000-02	.1000-02	.9000	.1994-04	.2413-04	.1438-01	.1041	530.4
41	1425.0	437.70	316.00	.1350-02	.1633-02	.1633-02	.9000	.3258-04	.3938-04	.2359-01	.1767	527.5
41	1425.0	466.30	317.00	.5946-02	.7185-02	.7185-02	.9000	.1434-03	.1733-03	.1040	.6155	526.3
41	1425.0	508.60	318.00	.4075-02	.4924-02	.4924-02	.9000	.9832-04	.1188-03	.7140-01	.5947	525.5
41	1425.0	536.50	319.00	.6292-02	.7603-02	.7603-02	.9000	.1518-03	.1834-03	.1102	.8258	525.9
41	1450.0	418.20	320.00	.1110-02	.1343-02	.1343-02	.9000	.2678-04	.3240-04	.1935-01	.1889	529.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2610

OH84B 60-0 OMS POD

(R4US27)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
41	1450.0	436.00	321.00	1305-02	.1578-02	.1578-02	.9000	.3149-04	.3806-04	.2282-01	.1768	527.0
41	1450.0	448.20	322.00	.5329-02	.6439-02	.6439-02	.9000	.1286-03	.1554-03	.9335-01	.6361	525.6
41	1450.0	511.10	323.00	5582-02	6744-02	.6744-02	.9000	.1347-03	.1627-03	.9781-01	.8799	525.3
41	1450.0	526.60	325.00	7553-02	.9126-02	.9126-02	.9000	.1822-03	.2202-03	.1323	1.102	525.7
41	1500.0	437.00	327.00	.6468-03	.7799-03	.7799-03	.9000	.1558-04	.1881-04	.1134-01	.8802-01	523.8
41	1500.0	470.40	328.00	2349-02	.2837-02	.2837-02	.9000	.5668-04	.6844-04	.4128-01	.2582	523.3
41	1500.0	514.00	329.00	8199-02	9903-02	9903-02	.9000	.1978-03	.2389-03	.1438	1.044	524.4
41	1500.0	532.30	331.00	.3438-02	.4151-02	.4151-02	.9000	.8295-04	1.001-03	.6049-01	.4007	522.4
41	1500.0	539.40	330.00	.4568-02	.5516-02	.5516-02	.9000	.1102-03	.1331-03	.8021-01	.5824	523.8
41	1525.0	424.00	332.00	.3124-03	.3774-03	.3774-03	.9000	.7538-05	.9104-05	.5484-02	.4256-01	524.1
41	1525.0	431.00	333.00	.5733-03	.6924-03	.6924-03	.9000	.1383-04	.1670-04	.1007-01	.6664-01	523.9
41	1525.0	440.00	334.00	.4909-03	.5927-03	.5927-03	.9000	.1184-04	.1430-04	.8631-02	.5553-01	522.9
41	1525.0	493.00	335.00	.4175-02	.5040-02	.5040-02	.9000	.1007-03	.1216-03	.7345-01	.5705	522.4
41	1545.0	434.00	338.00	.6693-03	.8081-03	.8081-03	.9000	.1615-04	.1950-04	.1176-01	.9810-01	523.1
41	1545.0	443.00	339.00	.7753-03	.9360-03	.9360-03	.9000	.1870-04	.2258-04	.1363-01	.7871-01	522.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2611

OH84B 60-0 OMS POD

(R4US27)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 4.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
63	1 994	7.980	39.99	4.049	433.3	1302.	94.76	.4511-01	2.011	3808	.1285-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
63	.3497-01	.2875-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
63	1325 0	428 60	298.00	.2092-02	.2520-02	.2520-02	.9000	.7318-04	.8813-04	.5613-01	.4188	534.7
63	1325 0	489 20	299 00	.6866-02	.8267-02	.8267-02	.9000	.2401-03	.2891-03	.1844	1.252	533.6
63	1325 0	506.70	301 00	.2376-01	.2862-01	.2862-01	.9000	.8309-03	.1001-02	.6369	5.091	535.1
63	1325.0	511.30	300.00	.4030-01	.4861-01	.4861-01	.9000	.1409-02	.1700-02	1.072	7.976	540.8
63	1350.0	440.40	302.00	.2393-02	.2882-02	.2882-02	.9000	.8369-04	.1008-03	.6418-01	.5985	534.8
63	1350 0	458 60	303.00	.5105-02	.6146-02	.6146-02	.9000	.1785-03	.2149-03	.1372	1.025	533.0
63	1350.0	498 50	304.00	.4774-02	.5743-02	.5743-02	.9000	.1670-03	.2009-03	.1288	.9026	530.4
63	1350 0	515 50	306 00	.2061-01	.2481-01	.2481-01	.9000	.7206-03	.8678-03	.5531	3.995	534.2
63	1350.0	524.40	305 00	.2054-01	.2474-01	.2474-01	.9000	.7184-03	.8651-03	.5513	4.256	534.2
63	1375 0	421 60	308.00	.8946-03	.1078-02	.1078-02	.9000	.3129-04	.3770-04	.2394-01	.3345	536.6
63	1375 0	440 00	309.00	.3016-02	.3633-02	.3633-02	.9000	.1055-03	.1270-03	.8095-01	.7880	534.3
63	1375.0	460 00	310 00	.7176-02	.8636-02	.8636-02	.9000	.2510-03	.3020-03	.1933	1.238	531.5
63	1375.0	503 40	311 00	.2918-02	.3508-02	.3508-02	.9000	.1021-03	.1227-03	.7897-01	.6335	527 9
63	1375.0	531.00	312 00	.1085-01	.1304-01	.1304-01	.9000	.3793-03	.4562-03	.2928	2.120	529.6
63	1400.0	523 40	313.00	.1175-01	.1413-01	.1413-01	.9000	.4108-03	.4943-03	.3164	2 628	531 4
63	1425.0	415 10	315 00	.1278-02	.1539-02	.1539-02	.9000	.4468-04	.5381-04	.3428-01	.2476	534.5
63	1425.0	437.70	316 00	.2794-02	.3363-02	.3363-02	.9000	.9773-04	.1176-03	.7525-01	.5623	531 7
63	1425 0	466.30	317 00	.8690-02	.1045-01	.1045-01	.9000	.3039-03	.3656-03	.2345	1.384	530.2
63	1425.0	508 60	318 00	.4555-02	.5478-02	.5478-02	.9000	.1593-03	.1916-03	.1231	1.023	529.0
63	1425 0	536 50	319.00	.5081-02	.6108-02	.6108-02	.9000	.1777-03	.2136-03	.1375	1.029	528.1
63	1450 0	418 20	320 00	.8660-03	.1042-02	.1042-02	.9000	.3029-04	.3646-04	.2329-01	.2269	532.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US27)

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
63	1450.0	436.00	321.00	.1909-02	.2297-02	.2297-02	.9000	.6678-04	.8034-04	.5148-01	.3982	530.7
63	1450.0	468.20	322.00	.7475-02	.8992-02	.8992-02	.9000	.2614-03	.3145-03	.2018	1.373	529.7
63	1450.0	511.10	323.00	.6232-02	.7494-02	.7494-02	.9000	.2180-03	.2621-03	.1685	1.514	528.4
63	1450.0	526.60	325.00	.5632-02	.6772-02	.6772-02	.9000	.1970-03	.2368-03	.1523	1.267	528.3
63	1500.0	437.00	327.00	.1064-02	.1279-02	.1279-02	.9000	.3722-04	.4473-04	.2886-01	.2237	526.3
63	1500.0	470.40	328.00	.3482-02	.4184-02	.4184-02	.9000	.1218-03	.1463-03	.9445-01	.5899	526.0
63	1500.0	514.00	329.00	.8410-02	.1011-01	.1011-01	.9000	.2941-03	.3536-03	.2277	1.650	527.5
63	1500.0	532.30	331.00	.3588-02	.4310-02	.4310-02	.9000	.1255-03	.1507-03	.9756-01	.6458	524.2
63	1500.0	539.40	330.00	.5388-02	.6475-02	.6475-02	.9000	.1884-03	.2264-03	.1462	1.060	525.9
63	1525.0	424.00	332.00	.9055-03	.1088-02	.1088-02	.9000	.3167-04	.3805-04	.2457-01	.1906	525.6
63	1525.0	431.00	333.00	.1283-02	.1541-02	.1541-02	.9000	.4487-04	.5391-04	.3484-01	.2304	525.3
63	1525.0	440.00	334.00	.1488-02	.1788-02	.1788-02	.9000	.5205-04	.6252-04	.4045-01	.2601	524.5
63	1525.0	493.00	335.00	.3803-02	.4568-02	.4568-02	.9000	.1330-03	.1598-03	.1034	.8019	524.6
63	1545.0	434.00	338.00	.1453-02	.1746-02	.1746-02	.9000	.5083-04	.6107-04	.3945-01	.3286	525.6
63	1545.0	443.00	339.00	.1487-02	.1786-02	.1786-02	.9000	.5201-04	.6248-04	.4039-01	.2330	525.0



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2613

OH84B 60-0 OMS POD

(R4US28)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 10.00 ELEVON = .0000  
 BDFLAP = .0000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
29	.5059	7.900	40.08	9.969	100.5	1249.	92.62	.1117-01	.4879	3727.	.3255-03	.7453-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
29	.1710-01	.5687-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
29	1325.0	428.60	298.00	.4140-03	.5011-03	.5011-03	.9000	.7081-05	.8571-05	.5086-02	.3803-01	530.4
29	1325.0	489.20	299.00	.5865-02	.7100-02	.7100-02	.9000	.1003-03	.1214-03	.7204-01	.4897	530.6
29	1325 0	506.70	301.00	.7976-02	.9653-02	.9653-02	.9000	.1364-03	.1651-03	.9807-01	.7859	529.8
29	1325.0	511.30	300.00	.1455-01	.1762-01	.1762-01	.9000	.2489-03	.3014-03	.1785	1.334	531.6
29	1350.0	440 40	302 00	.3384-03	.4097-03	.4097-03	.9000	.5788-05	.7007-05	.4155-02	.3883-01	530 8
29	1350 0	458 60	303 00	.2619-02	.3171-02	.3171-02	.9000	.4480-04	.5424-04	.3216-01	.2404	530 9
29	1350.0	498.50	304.00	.5943-02	.7194-02	.7194-02	.9000	.1017-03	.1231-03	.7301-01	.5118	530.5
29	1350.0	515 50	306 00	.1155-01	.1399-01	.1399-01	.9000	.1976-03	.2392-03	.1418	1.025	531.2
29	1350 0	524 40	305.00	.1509-01	.1827-01	.1827-01	.9000	.2581-03	.3125-03	.1852	1.432	531.3
29	1375.0	421 60	308.00	.4742-03	.5742-03	.5742-03	.9000	.8111-05	.9822-05	.5815-02	.8147-01	531 7
29	1375 0	440 00	309.00	.9400-03	.1138-02	.1138-02	.9000	.1608-04	.1947-04	.1153-01	1.124	531.3
29	1375 0	460.00	310 00	.4053-02	.4906-02	.4906-02	.9000	.6932-04	.8391-04	.4976-01	.3189	530 8
29	1375 0	503 40	311 00	.4077-02	.4933-02	.4933-02	.9000	.6973-04	.8438-04	.5016-01	.4020	529.4
29	1375.0	531 00	312.00	.1121-01	.1357-01	.1357-01	.9000	.1918-03	.2321-03	.1379	.9982	529.6
29	1400.0	523 40	313 00	.6793-02	.8223-02	.8223-02	.9000	.1162-03	.1406-03	.8347-01	.6935	530 3
29	1425 0	415 10	315 00	.1373-02	.1662-02	.1662-02	.9000	.2348-04	.2842-04	.1684-01	.1218	531.2
29	1425 0	437 70	316 00	.1835-02	.2221-02	.2221-02	.9000	.3139-04	.3800-04	.2254-01	.1685	530 7
29	1425.0	466 30	317 00	.4546-02	.5503-02	.5503-02	.9000	.7776-04	.9413-04	.5583-01	.3296	530 6
29	1425 0	508 60	318 00	.3518-02	.4258-02	.4258-02	.9000	.6017-04	.7283-04	.4322-01	.3590	530.5
29	1425.0	536 50	319 00	.6205-02	.7510-02	.7510-02	.9000	.1061-03	.1285-03	.7623-01	.5700	530 4
29	1450 0	418 20	320 00	.1527-02	.1848-02	.1848-02	.9000	.2611-04	.3161-04	.1875-01	.1828	530 8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US28)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
29	1450.0	436.00	321.00	.1633-02	.1977-02	.1977-02	.9000	.2794-04	.3382-04	.2006-01	.1552	530.6
29	1450.0	468.20	322.00	.2938-02	.3557-02	.3557-02	.9000	.5026-04	.6083-04	.3610-01	.2454	530.4
29	1450.0	511.10	323.00	.3211-02	.3887-02	.3887-02	.9000	.5493-04	.6648-04	.3947-01	.3542	530.1
29	1450.0	526.60	325.00	.4887-02	.5914-02	.5914-02	.9000	.8358-04	.1012-03	.6006-01	.4991	530.1
29	1500.0	437.00	327.00	.3753-03	.4542-03	.4542-03	.9000	.6420-05	.7769-05	.4617-02	.3573-01	529.6
29	1500.0	470.40	328.00	.1258-02	.1522-02	.1522-02	.9000	.2151-04	.2604-04	.1547-01	.9642-01	529.7
29	1500.0	514.00	329.00	.2776-02	.3361-02	.3361-02	.9000	.4749-04	.5748-04	.3411-01	.2468	530.4
29	1500.0	532.30	331.00	.2454-02	.2970-02	.2970-02	.9000	.4197-04	.5079-04	.3019-01	.1993	529.3
29	1500.0	539.40	330.00	.2240-02	.2711-02	.2711-02	.9000	.3831-04	.4638-04	.2752-01	.1991	530.4
29	1525.0	424.00	332.00	.2062-03	.2495-03	.2495-03	.9000	.3526-05	.4268-05	.2533-02	.1960-01	530.2
29	1525.0	431.00	333.00	.2869-03	.3472-03	.3472-03	.9000	.4906-05	.5938-05	.3527-02	.2327-01	529.9
29	1525.0	440.00	334.00	.6433-03	.7784-03	.7784-03	.9000	.1100-04	.1331-04	.7917-02	.5078-01	529.2
29	1525.0	493.00	335.00	.7559-03	.9143-03	.9143-03	.9000	.1293-04	.1564-04	.9314-02	.7213-01	528.2
29	1545.0	434.00	338.00	.5546-03	.6712-03	.6712-03	.9000	.9486-05	.1148-04	.6818-02	.5666-01	529.9
29	1545.0	443.00	339.00	.9934-03	.1202-02	.1202-02	.9000	.1699-04	.2056-04	.1221-01	.7027-01	529.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2615

OH84B 60-0 OMS POD

(R4US28)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 10.00    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
44	1.020	7.940	39.96	10.01	207.3	1257.	92.34	.2230-01	.9842	3740.	.6518-03	.7431-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
44	2432-01	.4022-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
44	1325.0	428.60	298.00	.1035-02	.1251-02	.1251-02	.9000	.2517-04	.3043-04	.1830-01	.1369	529.5
44	1325.0	489.20	299.00	.9259-02	.1119-01	.1119-01	.9000	.2252-03	.2721-03	.1640	1.116	528.2
44	1325.0	506.70	301.00	.1362-01	.1646-01	.1646-01	.9000	.3312-03	.4003-03	.2413	1.935	528.3
44	1325.0	511.30	300.00	.1793-01	.2167-01	.2167-01	.9000	.4359-03	.5269-03	.3172	2.374	529.0
44	1350.0	440.40	302.00	.1488-02	.1799-02	.1799-02	.9000	.3619-04	.4374-04	.2634-01	.2464	528.8
44	1350.0	458.60	303.00	.3114-02	.3763-02	.3763-02	.9000	.7574-04	.9151-04	.5523-01	.4136	527.4
44	1350.0	498.50	304.00	.7084-02	.8557-02	.8557-02	.9000	.1723-03	.2081-03	.1258	.8833	526.7
44	1350.0	515.50	306.00	.1411-01	.1705-01	.1705-01	.9000	.3431-03	.4146-03	.2498	1.809	528.6
44	1350.0	524.40	305.00	.1142-01	.1380-01	.1380-01	.9000	.2778-03	.3356-03	.2025	1.569	527.6
44	1375.0	421.60	308.00	.9602-03	.1162-02	.1162-02	.9000	.2335-04	.2825-04	.1693-01	.2372	531.7
44	1375.0	440.00	309.00	.2401-02	.2902-02	.2902-02	.9000	.5838-04	.7057-04	.4249-01	.4147	528.9
44	1375.0	460.00	310.00	.4206-02	.5080-02	.5080-02	.9000	.1023-03	.1235-03	.7466-01	.4794	526.7
44	1375.0	503.40	311.00	.3251-02	.3924-02	.3924-02	.9000	.7906-04	.9544-04	.5789-01	.4652	524.5
44	1375.0	531.00	312.00	.8195-02	.9895-02	.9895-02	.9000	.1993-03	.2406-03	.1457	1.057	525.4
44	1400.0	523.40	313.00	.8225-02	.9934-02	.9934-02	.9000	.2000-03	.2416-03	.1461	1.216	526.4
44	1425.0	415.10	315.00	.1814-02	.2193-02	.2193-02	.9000	.4411-04	.5333-04	.3205-01	.2319	530.1
44	1425.0	437.70	316.00	.4511-02	.5450-02	.5450-02	.9000	.1097-03	.1325-03	.8002-01	.5993	527.2
44	1425.0	466.30	317.00	.5252-02	.6342-02	.6342-02	.9000	.1277-03	.1542-03	.9339-01	.5527	525.4
44	1425.0	508.60	318.00	.3083-02	.3722-02	.3722-02	.9000	.7496-04	.9050-04	.5487-01	.4572	524.7
44	1425.0	536.50	319.00	.4883-02	.5896-02	.5896-02	.9000	.1187-03	.1434-03	.8687-01	.6513	525.1
44	1450.0	418.20	320.00	.8953-03	.1082-02	.1082-02	.9000	.2177-04	.2631-04	.1585-01	.1547	528.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US28)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
44	1450.0	436.00	321.00	.2670-02	.3225-02	.3225-02	.9000	.6493-04	.7844-04	.4738-01	.3672	526.9
44	1450 0	468.20	322.00	.4688-02	.5660-02	.5660-02	.9000	.1140-03	.1376-03	.8342-01	.5686	525.0
44	1450.0	511 10	323.00	.2806-02	.3387-02	.3387-02	.9000	.6823-04	.8235-04	.4999-01	.4500	524.0
44	1450 0	526 60	325.00	.6163-02	.7442-02	.7442-02	.9000	.1499-03	.1810-03	.1096	.9129	525.4
44	1500 0	437.00	327.00	.8858-03	.1069-02	.1069-02	.9000	.2154-04	.2600-04	.1580-01	.1226	523.4
44	1500.0	470.40	328 00	.1908-02	.2302-02	.2302-02	.9000	.4639-04	.5598-04	.3405-01	.2130	522.8
44	1500 0	514 00	329 00	.2795-02	.3372-02	.3372-02	.9000	.6796-04	.8201-04	.4986-01	.3622	523.0
44	1500.0	532 30	331.00	.3121-02	.3765-02	.3765-02	.9000	.7590-04	.9155-04	.5578-01	.3696	521.8
44	1500 0	539 40	330.00	.2580-02	.3112-02	.3112-02	.9000	.6273-04	.7569-04	.4604-01	.3345	522.7
44	1525 0	424 00	332.00	.1195-02	.1442-02	.1442-02	.9000	.2905-04	.3507-04	.2129-01	.1653	523.8
44	1525 0	431 00	333 00	.1138-02	.1374-02	.1374-02	.9000	.2768-04	.3341-04	.2030-01	.1344	523.5
44	1525 0	440.00	334.00	.1059-02	.1278-02	.1278-02	.9000	.2576-04	.3108-04	.1891-01	.1217	522.5
44	1525 0	493 00	335.00	.1604-02	.1935-02	.1935-02	.9000	.3901-04	.4705-04	.2869-01	.2229	521.3
44	1545.0	434 00	338.00	.1731-02	.2088-02	.2088-02	.9000	.4208-04	.5078-04	.3088-01	.2575	523.0
44	1545.0	443 00	339 00	.1621-02	.1955-02	.1955-02	.9000	.3941-04	.4755-04	.2893-01	.1671	522.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2617

OH84B 60-0 OMS POD

(R4US28)

OMS POD

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 10.00 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
57	1.996	7.980	40.01	10.01	434.1	1303.	94.84	.4519-01	2.014	3810.	.1286-02	.7631-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
57	.3501-01	.2874-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Z0	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
57	1325.0	428.60	298.00	.1273-02	.1531-02	.1531-02	.9000	.4455-04	.5358-04	.3442-01	.2575	530.0
57	1325.0	489.20	299.00	.9162-02	.1102-01	.1102-01	.9000	.3208-03	.3859-03	.2476	1 683	530.8
57	1325.0	506.70	301.00	.2177-01	.2620-01	.2620-01	.9000	.7621-03	.9172-03	.5871	4.699	532.3
57	1325.0	511.30	300.00	.2275-01	.2739-01	.2739-01	.9000	.7966-03	.9590-03	.6128	4.575	533.4
57	1350.0	440.40	302.00	.1873-02	.2252-02	.2252-02	.9000	.6556-04	.7886-04	.5063-01	.4733	530.3
57	1350.0	458.60	303.00	.3521-02	.4235-02	.4235-02	.9000	.1233-03	.1483-03	.9533-01	.7132	529.4
57	1350.0	498.50	304.00	.6986-02	.8398-02	.8398-02	.9000	.2446-03	.2940-03	.1894	1.329	528.2
57	1350.0	515.50	306.00	.1897-01	.2283-01	.2283-01	.9000	.6643-03	.7994-03	.5118	3.700	532.2
57	1350.0	524.40	305.00	.1653-01	.1989-01	.1989-01	.9000	.5786-03	.6963-03	.4462	3 450	531.5
57	1375.0	421.60	308.00	.1070-02	.1288-02	.1288-02	.9000	.3747-04	.4510-04	.2888-01	.4047	531.9
57	1375.0	440.00	309.00	.2863-02	.3444-02	.3444-02	.9000	.1002-03	.1206-03	.7741-01	.7550	530.4
57	1375.0	460.00	310.00	.4526-02	.5441-02	.5441-02	.9000	.1585-03	.1905-03	.1227	.7876	528.1
57	1375.0	503.40	311.00	.3377-02	.4058-02	.4058-02	.9000	.1182-03	.1421-03	.9187-01	.7378	525.8
57	1375.0	531.00	312.00	.1035-01	.1244-01	.1244-01	.9000	.3623-03	.4355-03	.2809	2.036	527.4
57	1400.0	523.40	313.00	.9043-02	.1087-01	.1087-01	.9000	.3166-03	.3806-03	.2451	2 038	528.5
57	1425.0	415.10	315.00	.1766-02	.2124-02	.2124-02	.9000	.6182-04	.7436-04	.4774-01	.3455	530.4
57	1425.0	437.70	316.00	.3437-02	.4133-02	.4133-02	.9000	.1203-03	.1447-03	.9310-01	.6967	529.0
57	1425.0	466.30	317.00	.5194-02	.6243-02	.6243-02	.9000	.1819-03	.2186-03	.1410	.8339	527.1
57	1425.0	508.60	318.00	.3995-02	.4801-02	.4801-02	.9000	.1399-03	.1681-03	.1085	.9032	526.8
57	1425.0	536.50	319.00	.5022-02	.6035-02	.6035-02	.9000	.1758-03	.2113-03	.1364	1.022	526.8
57	1450.0	418.20	320.00	.1695-02	.2039-02	.2039-02	.9000	.5936-04	.7138-04	.4590-01	.4479	529.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4US28)

RUN NUMBER	XO	ZO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
57	1450.0	436.00	321 00	.4497-02	.5408-02	.5408-02	.9000	.1574-03	.1893-03	.1218	.9433	528.8
57	1450 0	468.20	322.00	.5473-02	.6578-02	.6578-02	.9000	.1916-03	.2303-03	.1486	1.012	527.1
57	1450 0	511.10	323.00	.4179-02	.5021-02	.5021-02	.9000	.1463-03	.1758-03	.1137	1.023	525.7
57	1450 0	526.60	325.00	.3782-02	.4544-02	.4544-02	.9000	.1324-03	.1591-03	.1028	.8560	526.2
57	1500.0	437.00	327.00	.3354-02	.4029-02	.4029-02	.9000	.1174-03	.1411-03	.9128-01	.7080	525.2
57	1500.0	470.40	328.00	.4575-02	.5496-02	.5496-02	.9000	.1602-03	.1924-03	.1246	.7790	524.6
57	1500 0	514.00	329.00	.4536-02	.5449-02	.5449-02	.9000	.1588-03	.1908-03	.1235	.8959	525.2
57	1500.0	532 30	331 00	.2560-02	.3074-02	.3074-02	.9000	.8964-04	.1076-03	.6992-01	.4632	522.6
57	1500.0	539.40	330 00	.3926-02	.4716-02	.4716-02	.9000	.1375-03	.1651-03	.1069	.7762	524.7
57	1525 0	424.00	332 00	.3857-02	.4633-02	.4633-02	.9000	.1350-03	.1622-03	.1049	.8136	525.6
57	1525.0	431.00	333 00	.3926-02	.4715-02	.4715-02	.9000	.1374-03	.1651-03	.1069	.7076	524.7
57	1525.0	440.00	334 00	.3915-02	.4701-02	.4701-02	.9000	.1371-03	.1646-03	.1068	.6869	523 5
57	1525 0	493.00	335.00	.3219-02	.3865-02	.3865-02	.9000	.1127-03	.1353-03	.8793-01	.6829	522.5
57	1545 0	434 00	338.00	.4052-02	.4867-02	.4867-02	.9000	.1419-03	.1704-03	.1103	.9185	525.3
57	1545 0	443.00	339 00	.3811-02	.4577-02	.4577-02	.9000	.1334-03	.1602-03	.1039	.5994	524.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2619

OH84B 60-0 VERTICAL TAIL

(R4UT01)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
9	1.019	7.940	24.97	.5591-06	205.0	1248.	91.68	.2205-01	.9732	3727.	.6492-03	.7378-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
9	2415-01	.4026-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
9	.10000+00	.10000+00	340.00	.2710-01	.3291-01	.3291-01	.9000	.6545-03	.7949-03	.4623	3.274	541.3
9	.10000+00	.30000	341.00	.8047-02	.9763-02	.9763-02	.9000	.1943-03	.2358-03	.1379	1.010	538.0
9	.10000+00	.50000	342.00	.6104-02	.7405-02	.7405-02	.9000	.1474-03	.1789-03	.1047	.7929	537.8
9	.20000	.10000+00	343.00	.2414-01	.2929-01	.2929-01	.9000	.5830-03	.7075-03	.4132	2.977	539.0
9	.20000	.20000	344.00	.1011-01	.1227-01	.1227-01	.9000	.2442-03	.2963-03	.1734	1.284	537.6
9	.20000	.40000	345.00	.5440-02	.6598-02	.6598-02	.9000	.1314-03	.1594-03	.9344-01	.6676	536.6
9	.20000	.60000	346.00	.6349-02	.7699-02	.7699-02	.9000	.1533-03	.1859-03	.1091	.7870	536.3
9	.20000	.80000	347.00	.3586-02	.4347-02	.4347-02	.9000	.8661-04	.1050-03	.6172-01	.4385	535.1
9	.30000	.50000-01	348.00	.3357-01	.4077-01	.4077-01	.9000	.8108-03	.9847-03	.5728	4.303	541.2
9	.30000	.20000	349.00	.6881-02	.8346-02	.8346-02	.9000	.1662-03	.2016-03	.1182	.8524	536.7
9	.30000	.40000	350.00	.5104-02	.6188-02	.6188-02	.9000	.1233-03	.1495-03	.8777-01	.6334	535.7
9	.30000	.50000	351.00	.6215-02	.7535-02	.7535-02	.9000	.1501-03	.1820-03	.1069	.7521	535.5
9	.30000	.90000	352.00	.1859-01	.2255-01	.2255-01	.9000	.4491-03	.5446-03	.3193	2.380	536.6
9	.40000	.10000+00	353.00	.1555-01	.1887-01	.1887-01	.9000	.3757-03	.4557-03	.2669	1.957	537.1
9	.40000	.20000	354.00	.8307-02	.1007-01	.1007-01	.9000	.2006-03	.2433-03	.1427	1.013	536.3
9	.40000	.50000	356.00	.4865-02	.5896-02	.5896-02	.9000	.1175-03	.1424-03	.8382-01	.6093	534.3
9	.40000	.90000	358.00	.2622-01	.3182-01	.3182-01	.9000	.6334-03	.7685-03	.4495	3.371	538.0
9	.50000	.50000-01	359.00	.3550-01	.4313-01	.4313-01	.9000	.8575-03	.1042-02	.6053	4.737	541.8
9	.50000	.70000	360.00	.7927-02	.9609-02	.9609-02	.9000	.1915-03	.2321-03	.1365	1.091	534.8
9	.50000	.90000	361.00	.1980-01	.2402-01	.2402-01	.9000	.4783-03	.5802-03	.3399	2.412	537.1
9	.60000	.50000-01	362.00	.3474-01	.4220-01	.4220-01	.9000	.8390-03	.1019-02	.5922	4.554	541.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT01)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
9	.60000	.10000+00	363.00	.2382-01	.2890-01	.2890-01	.9000	.5752-03	.6980-03	.4079	3.089	538.5
9	.60000	.20000	364.00	.1019-01	.1236-01	.1236-01	.9000	.2462-03	.2985-03	.1752	1.293	536.0
9	.60000	.40000	365.00	.5820-02	.7054-02	.7054-02	.9000	.1406-03	.1704-03	.1003	.7064	534.0
9	.60000	.50000	366.00	.5022-02	.6085-02	.6085-02	.9000	.1213-03	.1470-03	.8666-01	.6162	533.2
9	.60000	.70000	367.00	.6133-02	.7436-02	.7436-02	.9000	.1481-03	.1796-03	.1054	.8424	535.9
9	.60000	.90000	368.00	.1515-01	.1837-01	.1837-01	.9000	.3659-03	.4437-03	.2603	1.940	536.3
9	.70000	.50000-01	369.00	.3363-01	.4085-01	.4085-01	.9000	.8122-03	.9866-03	.5730	4.646	542.2
9	.70000	.70000	370.00	.5771-02	.6999-02	.6999-02	.9000	.1394-03	.1691-03	.9913-01	.8062	536.5
9	.70000	.90000	371.00	.8372-02	.1016-01	.1016-01	.9000	.2022-03	.2454-03	.1432	1.103	539.5
9	.80000	.50000-01	372.00	.7113-03	.9633-03	.9633-03	.9000	.1718-04	.2327-04	.8194-02	.5648-01	770.7
9	.80000	.10000+00	373.00	.3273-01	.3972-01	.3972-01	.9000	.7905-03	.9594-03	.5600	4.268	539.3
9	.80000	.40000	374.00	.8086-02	.9801-02	.9801-02	.9000	.1953-03	.2367-03	.1393	1.006	534.7
9	.80000	.50000	375.00	.5838-02	.7075-02	.7075-02	.9000	.1410-03	.1709-03	.1006	.6934	534.0
9	.80000	.70000	376.00	.5941-02	.7207-02	.7207-02	.9000	.1435-03	.1741-03	.1019	.8138	537.3
9	.80000	.90000	377.00	.1048-01	.1271-01	.1271-01	.9000	.2531-03	.3070-03	.1797	1.385	537.7
9	.90000	.10000+00	378.00	.7193-01	.8744-01	.8744-01	.9000	.1737-02	.2112-02	1.222	8.782	544.2
9	.90000	.30000	379.00	.2347-01	.2847-01	.2847-01	.9000	.5669-03	.6875-03	.4031	2.955	536.6
9	.90000	.50000	380.00	.1204-01	.1459-01	.1459-01	.9000	.2907-03	.3525-03	.2070	1.447	535.6
9	.90000	.70000	381.00	.6844-02	.8292-02	.8292-02	.9000	.1653-03	.2003-03	.1180	.8583	533.5
9	.90000	.90000	382.00	.7894-02	.9566-02	.9566-02	.9000	.1907-03	.2311-03	.1361	1.023	533.8
9	.95000	.30000	383.00	.3517-01	.4267-01	.4267-01	.9000	.8494-03	.1031-02	.6029	4.305	537.9
9	.95000	.50000	384.00	.2246-01	.2723-01	.2723-01	.9000	.5424-03	.6578-03	.3859	2.740	536.3
9	.95000	.90000	385.00	.1074-01	.1302-01	.1302-01	.9000	.2595-03	.3145-03	.1851	1.256	534.4



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT01)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = 49.00

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
8	1.994	7.980	24 96	5594-06	433.2	1302	94.76	.4510-01	2.010	3808.	.1284-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
8	.3497-01	.2875-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
8	.10000+00	.10000+00	340.00	.2779-01	.3355-01	.3355-01	.9000	.9718-03	.1173-02	.7370	5.214	543.3
8	.10000+00	.30000	341.00	.1180-01	.1423-01	.1423-01	.9000	.4128-03	.4977-03	.3148	2.306	538.9
8	.10000+00	.50000	342.00	.1044-01	.1258-01	.1258-01	.9000	.3649-03	.4399-03	.2787	2.111	538.0
8	.20000	.10000+00	343.00	.2054-01	.2477-01	.2477-01	.9000	.7184-03	.8662-03	.5477	3.946	539.2
8	.20000	.20000	344.00	.7276-02	.8769-02	.8769-02	.9000	.2544-03	.3066-03	.1945	1.440	537.2
8	.20000	.40000	345.00	.4954-02	.5969-02	.5969-02	.9000	.1732-03	.2087-03	.1327	.9485	535.7
8	.20000	.60000	346.00	.7718-02	.9296-02	.9296-02	.9000	.2699-03	.3251-03	.2069	1.494	535.0
8	.20000	.80000	347.00	.5174-02	.6230-02	.6230-02	.9000	.1809-03	.2179-03	.1390	.9884	533.5
8	.30000	.50000-01	348.00	.3124-01	.3771-01	.3771-01	.9000	.1092-02	.1319-02	.8290	6.223	542.7
8	.30000	.20000	349.00	.5198-02	.6262-02	.6262-02	.9000	.1818-03	.2190-03	.1393	1.005	535.6
8	.30000	.40000	350.00	.5892-02	.7096-02	.7096-02	.9000	.2060-03	.2481-03	.1581	1.142	534.4
8	.30000	.50000	351.00	.8368-02	.1008-01	.1008-01	.9000	.2926-03	.3524-03	.2245	1.580	534.6
8	.30000	.90000	352.00	.6080-01	.7345-01	.7345-01	.9000	.2126-02	.2568-02	1.607	11.92	545.9
8	.40000	.10000+00	353.00	.1614-01	.1945-01	.1945-01	.9000	.5644-03	.6801-03	.4318	3.166	536.6
8	.40000	.20000	354.00	.8629-02	.1039-01	.1039-01	.9000	.3017-03	.3634-03	.2313	1.643	535.1
8	.40000	.50000	356.00	.7598-02	.9146-02	.9146-02	.9000	.2657-03	.3198-03	.2043	1.486	532.8
8	.40000	.90000	358.00	.4659-01	.5623-01	.5623-01	.9000	.1629-02	.1966-02	1.237	9.251	542.6
8	.50000	.50000-01	359.00	.4069-01	.4915-01	.4915-01	.9000	.1423-02	.1719-02	1.077	8.416	544.8
8	.50000	.70000	360.00	.1199-01	.1445-01	.1445-01	.9000	.4194-03	.5052-03	.3214	2.569	535.3
8	.50000	.90000	361.00	.2332-01	.2811-01	.2811-01	.9000	.8154-03	.9830-03	.6224	4.414	538.4
8	.60000	.50000-01	362.00	.4041-01	.4880-01	.4880-01	.9000	.1413-02	.1706-02	1.069	8.212	544.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT01)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
8	.60000	.10000+00	363.00	.2695-01	.3250-01	.3250-01	.9000	.9424-03	.1136-02	.7184	5.438	539.4
8	.60000	.20000	364.00	.1166-01	.1405-01	.1405-01	.9000	.4078-03	.4913-03	.3124	2.307	535.5
8	.60000	.40000	365.00	.9492-02	.1143-01	.1143-01	.9000	.3319-03	.3996-03	.2551	1.797	533.2
8	.60000	.50000	366.00	.8463-02	.1019-01	.1019-01	.9000	.2960-03	.3562-03	.2277	1.620	532.4
8	.60000	.70000	367.00	.1123-01	.1354-01	.1354-01	.9000	.3927-03	.4733-03	.3002	2.397	537.3
8	.60000	.90000	368.00	.2007-01	.2419-01	.2419-01	.9000	.7019-03	.8460-03	.5365	3.998	537.3
8	.70000	.50000-01	369.00	.3783-01	.4570-01	.4570-01	.9000	.1323-02	.1598-02	1.000	8.099	545.5
8	.70000	.70000	370.00	.1110-01	.1338-01	.1338-01	.9000	.3881-03	.4680-03	.2959	2.403	539.2
8	.70000	.90000	371.00	.5828-02	.7022-02	.7022-02	.9000	.2038-03	.2455-03	.1561	1.204	535.9
8	.80000	.50000-01	372.00	.1088-02	.1401-02	.1401-02	.9000	.3803-04	.4899-04	.2214-01	.1562	719.5
8	.80000	.10000+00	373.00	.4720-01	.5697-01	.5697-01	.9000	.1651-02	.1992-02	1.253	9.531	542.8
8	.80000	.40000	374.00	.1627-01	.1960-01	.1960-01	.9000	.5690-03	.6854-03	.4359	3.146	535.5
8	.80000	.50000	375.00	.1185-01	.1427-01	.1427-01	.9000	.4144-03	.4990-03	.3183	2.194	533.5
8	.80000	.70000	376.00	.1367-01	.1649-01	.1649-01	.9000	.4779-03	.5765-03	.3639	2.900	540.3
8	.80000	.90000	377.00	.1868-01	.2253-01	.2253-01	.9000	.6532-03	.7880-03	.4970	3.824	540.8
8	.90000	.10000+00	378.00	.8953-01	.1071	.1071	.9000	.3096-02	.3746-02	2.322	16.63	551.5
8	.90000	.30000	379.00	.3879-01	.4679-01	.4679-01	.9000	.1356-02	.1636-02	1.032	7.552	540.7
8	.90000	.50000	380.00	.1769-01	.2132-01	.2132-01	.9000	.6187-03	.7455-03	.4733	3.308	536.6
8	.90000	.70000	381.00	.1135-01	.1366-01	.1366-01	.9000	.3969-03	.4777-03	.3052	2.220	532.7
8	.90000	.90000	382.00	.1065-01	.1282-01	.1282-01	.9000	.3723-03	.4483-03	.2859	2.148	533.7
8	.95000	.30000	383.00	.3862-01	.4659-01	.4659-01	.9000	.1350-02	.1629-02	1.028	7.327	540.7
8	.95000	.50000	384.00	.3240-01	.3907-01	.3907-01	.9000	.1133-02	.1366-02	.8638	6.124	539.3
8	.95000	.90000	385.00	.1639-01	.1974-01	.1974-01	.9000	.5732-03	.6904-03	.4396	2.982	534.8

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O VERTICAL TAIL

(R4UT01)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = .0000  
 BOFLAP = .0000 SPOBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
7	2.996	7.990	24 92	.5613-06	666.7	1320.	95.85	.6885-01	3.077	3835.	.1939-02	.7713-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
7	.4336-01	.2344-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
7	.10000+00	.10000+00	340.00	.2795-01	.3372-01	.3372-01	.9000	.1212-02	.1462-02	.9358	6.606	547.7
7	.10000+00	.30000	341.00	.1214-01	.1463-01	.1463-01	.9000	.5266-03	.6345-03	.4089	2.988	543.1
7	.10000+00	.50000	342.00	.9154-02	.1102-01	.1102-01	.9000	.3970-03	.4781-03	.3088	2.334	541.8
7	.20000	.10000+00	343.00	.2405-01	.2899-01	.2899-01	.9000	.1043-02	.1257-02	.8086	5.809	544.5
7	.20000	.20000	344.00	.8233-02	.9913-02	.9913-02	.9000	.3570-03	.4299-03	.2780	2.054	541.1
7	.20000	.40000	345.00	.6157-02	.7412-02	.7412-02	.9000	.2670-03	.3214-03	.2081	1.484	540.2
7	.20000	.60000	346 00	.9699-02	.1168-01	.1168-01	.9000	.4206-03	.5064-03	.3276	2.358	540.8
7	.20000	.80000	347 00	.9355-02	.1126-01	.1126-01	.9000	.4057-03	.4884-03	.3161	2.240	540.5
7	.30000	.50000-01	348 00	.4021-01	.4853-01	.4853-01	.9000	.1744-02	.2104-02	1.342	10.04	549.9
7	.30000	.20000	349.00	.7349-02	.8848-02	.8848-02	.9000	.3187-03	.3837-03	.2482	1.786	540.9
7	.30000	.40000	350 00	.8712-02	.1049-01	.1049-01	.9000	.3778-03	.4548-03	.2944	2.119	540.5
7	.30000	.50000	351.00	.1231-01	.1482-01	.1482-01	.9000	.5337-03	.6427-03	.4153	2.913	541.5
7	.30000	.90000	352 00	.5383-01	.6505-01	.6505-01	.9000	.2334-02	.2821-02	1.786	13.20	554.4
7	.40000	.10000+00	353.00	.1942-01	.2339-01	.2339-01	.9000	.8420-03	.1014-02	.6539	4.779	543.0
7	.40000	.20000	354 00	.1262-01	.1520-01	.1520-01	.9000	.5473-03	.6592-03	.4255	3.012	542.2
7	.40000	.50000	356 00	.1064-01	.1280-01	.1280-01	.9000	.4613-03	.5553-03	.3595	2.606	540.2
7	.40000	.90000	358 00	.3787-01	.4572-01	.4572-01	.9000	.1642-02	.1983-02	1.263	9.405	551.0
7	.50000	.50000-01	359.00	.4548-01	.5497-01	.5497-01	.9000	.1972-02	.2384-02	1.508	11.72	555.2
7	.50000	.70000	360 00	.1757-01	.2118-01	.2118-01	.9000	.7618-03	.9185-03	.5894	4.685	546.0
7	.50000	.90000	361 00	.3002-01	.3623-01	.3623-01	.9000	.1302-02	.1571-02	1.002	7.065	550.0
7	.60000	.50000-01	362 00	.4245-01	.5130-01	.5130-01	.9000	.1841-02	.2225-02	1.407	10.75	555.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT01)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
7	60000	.10000+00	363.00	.2965-01	.3578-01	.3578-01	.9000	.1286-02	.1551-02	.9914	7.470	548.7
7	.60000	.20000	364.00	.1586-01	.1911-01	.1911-01	.9000	.6876-03	.8287-03	.5330	3.918	544.6
7	60000	40000	365 00	.1343-01	.1617-01	.1617-01	.9000	.5822-03	.7011-03	.4530	3.177	541.6
7	60000	.50000	366 00	.1212-01	.1459-01	.1459-01	.9000	.5254-03	.6326-03	.4093	2.899	540.8
7	.60000	.70000	367 00	.1735-01	.2094-01	.2094-01	.9000	.7525-03	.9080-03	.5799	4.602	549.1
7	.60000	.90000	368 00	.3259-01	.3934-01	.3934-01	.9000	.1413-02	.1706-02	1.088	8.051	550.3
7	70000	.50000-01	369 00	.4275-01	.5170-01	.5170-01	.9000	.1854-02	.2242-02	1.413	11.37	557.4
7	70000	.70000	370 00	.1779-01	.2147-01	.2147-01	.9000	.7712-03	.9312-03	.5924	4.781	551.6
7	.70000	90000	371 00	.9092-02	.1095-01	.1095-01	.9000	.3943-03	.4746-03	.3073	2.365	540.3
7	.80000	.50000-01	372 00	.7250-03	.9169-03	.9169-03	.9000	.3144-04	.3976-04	.1982-01	.1418	689.3
7	.80000	.10000+00	373 00	.5902-01	.7134-01	.7134-01	.9000	.2559-02	.3094-02	1.955	14.78	555.7
7	80000	40000	374 00	.2524-01	.3043-01	.3043-01	.9000	.1094-02	.1320-02	.8464	6.076	546.3
7	80000	50000	375 00	.1939-01	.2336-01	.2336-01	.9000	.8409-03	.1013-02	.6526	4.475	543.6
7	.80000	70000	376 00	.2824-01	.3413-01	.3413-01	.9000	.1224-02	.1480-02	.9358	7.404	555.4
7	80000	90000	377 00	.3254-01	.3931-01	.3931-01	.9000	.1411-02	.1705-02	1.081	8.269	553.2
7	90000	.10000+00	378 00	.8728-01	.1057	.1057	.9000	.3785-02	.4584-02	2.864	20.38	563.1
7	.90000	.30000	379 00	.3684-01	.4445-01	.4445-01	.9000	.1598-02	.1927-02	1.233	8.986	548.1
7	.90000	.50000	380 00	.2285-01	.2756-01	.2756-01	.9000	.9911-03	.1195-02	.7658	5.323	547.0
7	90000	.70000	381 00	.1356-01	.1633-01	.1633-01	.9000	.5882-03	.7083-03	.4577	3.315	541.4
7	.90000	90000	382 00	.1349-01	.1625-01	.1625-01	.9000	.5850-03	.7046-03	.4548	3.403	542.3
7	.95000	.30000	383 00	.3613-01	.4359-01	.4359-01	.9000	.1567-02	.1890-02	1.209	8.587	548.1
7	.95000	50000	384.00	.3056-01	.3687-01	.3687-01	.9000	.1325-02	.1599-02	1.023	7.221	547.9
7	.95000	.90000	385 00	.2051-01	.2471-01	.2471-01	.9000	.8893-03	.1071-02	.6905	4.663	543.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT01)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
6	3.633	8.000	24.95	.1253-01	846 7	1358.	98.38	.8672-01	3.885	3890	.2379-02	.7917-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
6	4897-01	2122-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
6	.10000+00	.10000+00	340.00	.2631-01	.3157-01	.3157-01	.9000	.1288-02	.1546-02	1.050	7.427	543.0
6	.10000+00	.30000	341.00	.1374-01	.1648-01	.1648-01	.9000	.6730-03	.8068-03	.5507	4.032	539.4
6	.10000+00	.50000	342.00	.1029-01	.1233-01	.1233-01	.9000	.5041-03	.6040-03	.4137	3.136	536.9
6	.20000	.10000+00	343.00	.2443-01	.2929-01	.2929-01	.9000	.1196-02	.1435-02	.9784	7.046	539.8
6	.20000	.20000	344.00	.9632-02	.1154-01	.1154-01	.9000	.4717-03	.5651-03	.3873	2.868	536.6
6	.20000	.40000	345.00	.7858-02	.9410-02	.9410-02	.9000	.3848-03	.4608-03	.3167	2.265	534.6
6	.20000	.60000	346.00	.1059-01	.1268-01	.1268-01	.9000	.5184-03	.6209-03	.4266	3.080	534.8
6	.20000	.80000	347.00	.1250-01	.1497-01	.1497-01	.9000	.6119-03	.7329-03	.5035	3.577	534.9
6	.30000	.50000-01	348.00	.4597-01	.5522-01	.5522-01	.9000	.2251-02	.2704-02	1.823	13.65	547.9
6	.30000	.20000	349.00	.7741-02	.9271-02	.9271-02	.9000	.3791-03	.4540-03	.3120	2.252	534.8
6	.30000	.40000	350.00	.9230-02	.1105-01	.1105-01	.9000	.4520-03	.5413-03	.3722	2.688	534.4
6	.30000	.50000	351.00	.1334-01	.1598-01	.1598-01	.9000	.6535-03	.7828-03	.5372	3.780	535.6
6	.30000	.90000	352.00	.5590-01	.6721-01	.6721-01	.9000	.2737-02	.3291-02	2.209	16.35	550.8
6	.40000	.10000+00	353.00	.2067-01	.2477-01	.2477-01	.9000	.1012-02	.1213-02	.8297	6.079	538.0
6	.40000	.20000	354.00	.1363-01	.1633-01	.1633-01	.9000	.6676-03	.7998-03	.5480	3.890	536.7
6	.40000	.50000	356.00	.1216-01	.1456-01	.1456-01	.9000	.5954-03	.7129-03	.4904	3.565	534.0
6	.40000	.90000	358.00	.3670-01	.4407-01	.4407-01	.9000	.1797-02	.2158-02	1.459	10.90	545.8
6	.50000	.50000-01	359.00	.4549-01	.5471-01	.5471-01	.9000	.2228-02	.2679-02	1.795	13.97	552.0
6	.50000	.70000	360.00	.2002-01	.2402-01	.2402-01	.9000	.9804-03	.1176-02	.7993	6.365	542.4
6	.50000	.90000	361.00	.3184-01	.3822-01	.3822-01	.9000	.1559-02	.1872-02	1.267	8.957	544.9
6	.60000	.50000-01	362.00	.4095-01	.4925-01	.4925-01	.9000	.2006-02	.2412-02	1.617	12.38	551.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT01)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(10) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
6	.60000	.10000+00	363.00	.2877-01	.3453-01	.3453-01	.9000	.1409-02	.1691-02	1.148	8.678	542.7
6	.60000	.20000	364.00	.1661-01	.1991-01	.1991-01	.9000	.8134-03	.9751-03	.6660	4.909	538.9
6	.60000	.40000	365.00	.1478-01	.1770-01	.1770-01	.9000	.7236-03	.8667-03	.5949	4.186	535.4
6	.60000	.50000	366.00	.1368-01	.1639-01	.1639-01	.9000	.6700-03	.8025-03	.5512	3.916	535.0
6	.60000	.70000	367.00	.1927-01	.2313-01	.2313-01	.9000	.9435-03	.1133-02	.7659	6.088	545.9
6	.60000	.90000	368.00	.3399-01	.4081-01	.4081-01	.9000	.1664-02	.1998-02	1.352	10.04	545.3
6	.70000	.50000-01	369.00	.4326-01	.5206-01	.5206-01	.9000	.2118-02	.2549-02	1.701	13.70	554.9
6	.70000	.70000	370.00	.2006-01	.2411-01	.2411-01	.9000	.9823-03	.1181-02	.7941	6.416	549.3
6	.70000	.90000	371.00	.8970-02	.1075-01	.1075-01	.9000	.4393-03	.5266-03	.3599	2.772	538.5
6	.80000	.50000-01	372.00	.2411-03	.2897-03	.2897-03	.9000	.1181-04	.1419-04	.9546-02	.7314-01	549.2
6	.80000	.10000+00	373.00	.6261-01	.7530-01	.7530-01	.9000	.3066-02	.3687-02	2.471	18.71	551.8
6	.80000	.40000	374.00	.2769-01	.3322-01	.3322-01	.9000	.1356-02	.1627-02	1.106	7.957	542.0
6	.80000	.50000	375.00	.2209-01	.2649-01	.2649-01	.9000	.1082-02	.1297-02	.8861	6.090	538.8
6	.80000	.70000	376.00	.3357-01	.4038-01	.4038-01	.9000	.1644-02	.1978-02	1.322	10.47	553.4
6	.80000	.90000	377.00	.3598-01	.4326-01	.4326-01	.9000	.1762-02	.2118-02	1.421	10.88	551.0
6	.90000	.10000+00	378.00	.9009-01	.1086	.1086	.9000	.4412-02	.5319-02	3.513	25.02	561.5
6	.90000	.30000	379.00	.3686-01	.4424-01	.4424-01	.9000	.1805-02	.2166-02	1.470	10.74	543.3
6	.90000	.50000	380.00	.2544-01	.3053-01	.3053-01	.9000	.1246-02	.1495-02	1.015	7.070	543.0
6	.90000	.70000	381.00	.1466-01	.1756-01	.1756-01	.9000	.7178-03	.8597-03	.5902	4.288	535.4
6	.90000	.90000	382.00	.1330-01	.1594-01	.1594-01	.9000	.6516-03	.7806-03	.5350	4.015	536.5
6	.95000	.30000	383.00	.3513-01	.4216-01	.4216-01	.9000	.1720-02	.2064-02	1.401	9.978	543.2
6	.95000	.50000	384.00	.3091-01	.3708-01	.3708-01	.9000	.1514-02	.1816-02	1.235	8.741	542.0
6	.95000	.90000	385.00	.2151-01	.2578-01	.2578-01	.9000	.1053-02	.1263-02	.8632	5.844	538.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT02)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
155	2.001	7.980	29.94	-4.041	434.3	1301	94.69	.4522-01	2.016	3807	.1289-02	.7620-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
155	3501-01	.2870-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
155	.10000+00	.10000+00	340.00	.2889-01	.3481-01	.3481-01	.9000	.1011-02	.1219-02	.7741	5.499	535.3
155	.10000+00	.30000	341.00	.1404-01	.1690-01	.1690-01	.9000	.4916-03	.5917-03	.3777	2.775	532.4
155	.10000+00	.50000	342.00	.1383-01	.1664-01	.1664-01	.9000	.4841-03	.5827-03	.3722	2.829	531.7
155	.20000	.10000+00	343 00	.2646-01	.3186-01	.3186-01	.9000	.9262-03	.1115-02	.7103	5.131	533.8
155	.20000	.20000	344.00	.1447-01	.1741-01	.1741-01	.9000	.5065-03	.6095-03	.3896	2.892	531.5
155	.20000	.40000	345 00	.8763-02	.1054-01	.1054-01	.9000	.3068-03	.3691-03	.2363	1.693	530.5
155	.20000	.60000	346 00	.8067-02	.9704-02	.9704-02	.9000	.2824-03	.3397-03	.2178	1.577	529.4
155	.20000	.80000	347.00	.2490-02	.2993-02	.2993-02	.9000	.8718-04	.1048-03	.6751-01	.4818	526.3
155	.30000	.50000-01	348 00	.2111-01	.2542-01	.2542-01	.9000	.7390-03	.8899-03	.5669	4.275	533.5
155	.30000	.20000	349.00	.9462-02	.1138-01	.1138-01	.9000	.3313-03	.3985-03	.2553	1.847	530.1
155	.30000	.40000	350 00	.8221-02	.9889-02	.9889-02	.9000	.2878-03	.3462-03	.2219	1.606	529.7
155	.30000	.50000	351.00	.1071-01	.1289-01	.1289-01	.9000	.3750-03	.4511-03	.2890	2.039	531.0
155	.30000	.90000	352.00	.4536-02	.5453-02	.5453-02	.9000	.1588-03	.1909-03	.1228	.9199	527.2
155	.40000	.10000+00	353 00	.1860-01	.2239-01	.2239-01	.9000	.6513-03	.7839-03	.5008	3.681	531.8
155	.40000	.20000	354.00	.2259-01	.2720-01	.2720-01	.9000	.7910-03	.9524-03	.6072	4.319	533.0
155	.40000	.50000	356 00	.2051-01	.2469-01	.2469-01	.9000	.7181-03	.8643-03	.5518	4.016	532.1
155	.40000	.90000	358 00	.1373-01	.1652-01	.1652-01	.9000	.4807-03	.5782-03	.3707	2.792	529.5
155	.50000	.50000-01	359 00	.2815-01	.3393-01	.3393-01	.9000	.9855-03	.1188-02	.7520	5.897	537.6
155	.50000	.70000	360 00	.1972-01	.2373-01	.2373-01	.9000	.6903-03	.8308-03	.5309	4.251	531.5
155	.50000	.90000	361 00	.2086-01	.2510-01	.2510-01	.9000	.7302-03	.8788-03	.5616	3.997	531.6
155	.60000	.50000-01	362 00	.3726-01	.4495-01	.4495-01	.9000	.1304-02	.1574-02	.9918	7.633	540.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT02)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
155	.60000	.10000+00	363.00	.3985-01	.4802-01	.4802-01	.9000	.1395-02	.1681-02	1.066	8.080	536.6
155	.60000	.20000	364.00	.4948-01	.5967-01	.5967-01	.9000	.1732-02	.2089-02	1.319	9.723	539.1
155	.60000	.40000	365.00	.5793-01	.6987-01	.6987-01	.9000	.2028-02	.2446-02	1.545	10.85	539.2
155	.60000	.50000	366.00	.4257-01	.5131-01	.5131-01	.9000	.1490-02	.1796-02	1.138	8.076	537.1
155	.60000	.70000	367.00	.1531-01	.1842-01	.1842-01	.9000	.5360-03	.6449-03	.4127	3.306	530.7
155	.60000	.90000	368.00	.1459-01	.1755-01	.1755-01	.9000	.5108-03	.6143-03	.3944	2.952	528.6
155	.70000	.50000-0.	369.00	.4575-01	.5523-01	.5523-01	.9000	.1602-02	.1934-02	1.214	9.841	542.8
155	.70000	.70000	370.00	.1912-01	.2301-01	.2301-01	.9000	.6693-03	.8055-03	.5149	4.198	531.4
155	.70000	.90000	371.00	.4317-02	.5197-02	.5197-02	.9000	.1511-03	.1819-03	.1161	.8969	532.6
155	.80000	.50000-01	372.00	.2698-02	.3430-02	.3430-02	.9000	.9444-04	.1201-03	.5751-01	.4111	691.7
155	.80000	.10000+00	373.00	.5652-01	.6819-01	.6819-01	.9000	.1979-02	.2387-02	1.505	11.46	540.3
155	.80000	.40000	374.00	.4030-01	.4858-01	.4858-01	.9000	.1411-02	.1701-02	1.076	7.758	537.8
155	.80000	.50000	375.00	.3484-01	.4199-01	.4199-01	.9000	.1220-02	.1470-02	.9328	6.420	536.0
155	.80000	.70000	376.00	.2087-01	.2512-01	.2512-01	.9000	.7307-03	.8796-03	.5616	4.495	532.1
155	.80000	.90000	377.00	.1544-01	.1857-01	.1857-01	.9000	.5404-03	.6501-03	.4166	3.223	529.8
155	.90000	.10000+00	378.00	.8244-01	.9963-01	.9963-01	.9000	.2886-02	.3488-02	2.176	15.62	546.6
155	.90000	.30000	379.00	.3426-01	.4128-01	.4128-01	.9000	.1199-02	.1445-02	.9180	6.735	535.4
155	.90000	.50000	380.00	.2217-01	.2669-01	.2669-01	.9000	.7763-03	.9343-03	.5971	4.184	531.5
155	.90000	.70000	381.00	.1608-01	.1935-01	.1935-01	.9000	.5630-03	.6773-03	.4341	3.163	529.6
155	.90000	.90000	382.00	.1629-01	.1960-01	.1960-01	.9000	.5703-03	.6861-03	.4394	3.308	530.2
155	.95000	.30000	383.00	.3896-01	.4695-01	.4695-01	.9000	.1364-02	.1644-02	1.042	7.445	536.6
155	.95000	.50000	384.00	.2575-01	.3100-01	.3100-01	.9000	.9015-03	.1085-02	.6920	4.922	533.0
155	.95000	.90000	385.00	.1703-01	.2049-01	.2049-01	.9000	.5963-03	.7174-03	.4598	3.127	529.7



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT02)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
116	2.983	7.990	29.94	-4 039	669 2	1327.	96 36	.6911-01	3.088	3845.	.1936-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
116	4349-01	.2347-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
116	.10000+00	.10000+00	340.00	.2864-01	.3443-01	.3443-01	9000	.1245-02	.1497-02	.9833	6.978	537.2
116	.10000+00	.30000	341.00	.1748-01	.2099-01	.2099-01	9000	.7600-03	.9128-03	.6021	4.419	534.4
116	.10000+00	.50000	342.00	.1737-01	.2086-01	.2086-01	9000	.7552-03	.9069-03	.5991	4.548	533.5
116	.20000	.10000+00	343.00	.2105-01	.2528-01	.2528-01	9000	.9153-03	.1099-02	.7255	5.240	534.1
116	.20000	.20000	344.00	.1225-01	.1471-01	.1471-01	9000	.5328-03	.6396-03	.4234	3.143	532.0
116	.20000	.40000	345.00	.1066-01	.1280-01	.1280-01	9000	.4636-03	.5565-03	.3684	2.638	532.0
116	.20000	.60000	346.00	.1007-01	.1208-01	.1208-01	9000	.4379-03	.5255-03	.3487	2.523	530.5
116	.20000	.80000	347.00	.3361-02	.4029-02	.4029-02	9000	.1462-03	.1752-03	.1170	.8346	526.5
116	.30000	.50000-01	348.00	.1852-01	.2225-01	.2225-01	9000	.8054-03	.9677-03	.6371	4.800	535.6
116	.30000	.20000	349 00	.1112-01	.1335-01	.1335-01	9000	.4837-03	.5806-03	.3847	2.782	531.4
116	.30000	.40000	350 00	.1205-01	.1447-01	.1447-01	9000	.5241-03	.6291-03	.4164	3.010	532.2
116	.30000	.50000	351 00	.1688-01	.2027-01	.2027-01	9000	.7342-03	.8817-03	.5821	4.100	533.7
116	.30000	.90000	352 00	.8042-02	.9645-02	.9645-02	9000	.3497-03	.4194-03	.2792	2.090	528.3
116	.40000	.10000+00	353 00	.3303-01	.3970-01	.3970-01	9000	.1436-02	.1727-02	1.134	8.309	537.3
116	.40000	.20000	354 00	.3490-01	.4196-01	.4196-01	9000	.1517-02	.1825-02	1.195	8.472	539.2
116	.40000	.50000	356 00	.1910-01	.2295-01	.2295-01	9000	.8307-03	.9978-03	.6580	4.782	534.6
116	.40000	.90000	358 00	.1508-01	.1810-01	.1810-01	9000	.6556-03	.7869-03	.5210	3.919	531.9
116	.50000	.50000-01	359 00	.5053-01	.6094-01	.6094-01	9000	.2197-02	.2650-02	1.707	13.30	550.0
116	.50000	.70000	360.00	.1406-01	.1689-01	.1689-01	9000	.6116-03	.7343-03	.4853	3.882	533.2
116	.50000	.90000	361 00	.1500-01	.1800-01	.1800-01	9000	.6521-03	.7829-03	.5180	3.685	532.3
116	.60000	.50000-01	362 00	.5291-01	.6381-01	.6381-01	9000	.2301-02	.2775-02	1.786	13.68	550.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT02)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
116	60000	.10000+00	363.00	.5044-01	.6072-01	.6072-01	.9000	.2193-02	.2640-02	1.718	12.98	543.3
116	60000	.20000	364.00	.4898-01	.5900-01	.5900-01	.9000	.2130-02	.2566-02	1.663	12.22	545.9
116	.60000	.40000	365.00	.4790-01	.5765-01	.5765-01	.9000	.2083-02	.2507-02	1.634	11.45	542.4
116	.60000	.50000	366.00	.3641-01	.4379-01	.4379-01	.9000	.1583-02	.1904-02	1.247	8.838	539.3
116	.60000	.70000	367.00	.1473-01	.1769-01	.1769-01	.9000	.6407-03	.7693-03	5084	4.067	533.2
116	.60000	.90000	368.00	.1376-01	.1651-01	.1651-01	.9000	.5984-03	.7181-03	4765	3.563	530.4
116	70000	.50000-01	369.00	.6248-01	.7544-01	.7544-01	.9000	.2717-02	.3281-02	2.099	16.91	554.3
116	70000	.70000	370.00	.1617-01	.1941-01	.1941-01	.9000	.7030-03	.8441-03	5577	4.543	533.2
116	70000	.90000	371.00	.3934-02	.4723-02	.4723-02	.9000	.1711-03	.2054-03	1359	1.050	532.5
116	.80000	.50000-01	372.00	.3093-02	.3911-02	.3911-02	.9000	.1345-03	.1701-03	8532-01	6097	692.3
116	.80000	.10000+00	373.00	.6908-01	.8330-01	.8330-01	.9000	.3004-02	.3622-02	2.334	17.70	549.7
116	80000	.40000	374.00	.3742-01	.4502-01	.4502-01	.9000	.1627-02	.1958-02	1.278	9.195	541.4
116	80000	.50000	375.00	.3135-01	.3771-01	.3771-01	.9000	.1363-02	.1640-02	1.073	7.371	539.8
116	80000	.70000	376.00	.1845-01	.2216-01	.2216-01	.9000	.8024-03	.9638-03	.6359	5.085	534.2
116	.80000	.90000	377.00	.1404-01	.1685-01	.1685-01	.9000	.6106-03	.7328-03	.4855	3.754	531.5
116	90000	.10000+00	378.00	.7616-01	.9189-01	.9189-01	.9000	.3312-02	.3996-02	2.566	18.37	551.9
116	.90000	.30000	379.00	.4075-01	.4903-01	.4903-01	.9000	.1772-02	.2132-02	1.392	10.18	541.0
116	.90000	.50000	380.00	.1988-01	.2388-01	.2388-01	.9000	.8647-03	.1038-02	.6856	4.799	533.7
116	.90000	.70000	381.00	.1534-01	.1841-01	.1841-01	.9000	.6670-03	.8006-03	.5305	3.862	531.3
116	.90000	.90000	382.00	.1550-01	.1861-01	.1861-01	.9000	.6742-03	.8093-03	.5358	4.030	532.0
116	.95000	.30000	383.00	.3804-01	.4576-01	.4576-01	.9000	.1654-02	.1990-02	1.301	9.276	540.3
116	.95000	.50000	384.00	.2866-01	.3446-01	.3446-01	.9000	.1246-02	.1499-02	.9829	6.972	538.1
116	.95000	.90000	385.00	.1680-01	.2016-01	.2016-01	.9000	.7303-03	.8766-03	5808	3.946	531.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT02)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
129	3.686	8.000	29 95	-4.052	853.2	1352.	97.95	.8740-01	3.915	3881.	.2408-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) #.0175
129	.4912-01	.2108-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
129	.10000+00	.10000+00	340.00	.2896-01	.3475-01	.3475-01	.9000	.1422-02	.1707-02	1.154	8.178	540.3
129	.10000+00	.30000	341.00	.1751-01	.2100-01	.2100-01	.9000	.8601-03	.1032-02	.6992	5.121	538.7
129	.10000+00	.50000	342.00	.1539-01	.1845-01	.1845-01	.9000	.7561-03	.9062-03	.6169	4.678	535.8
129	.20000	.10000+00	343.00	.2117-01	.2539-01	.2539-01	.9000	.1040-02	.1247-02	.8464	6.102	537.8
129	.20000	.20000	344.00	.1305-01	.1564-01	.1564-01	.9000	.6412-03	.7685-03	.5231	3.875	535.9
129	.20000	.40000	345.00	.1114-01	.1335-01	.1335-01	.9000	.5470-03	.6557-03	.4460	3.187	536.3
129	.20000	.60000	346.00	.1014-01	.1215-01	.1215-01	.9000	.4983-03	.5969-03	.4078	2.947	533.3
129	.20000	.80000	347.00	.3215-02	.3846-02	.3846-02	.9000	.1579-03	.1889-03	.1301	.9275	528.0
129	.30000	.50000-01	348.00	.2031-01	.2438-01	.2438-01	.9000	.9978-03	.1198-02	.8086	6.074	541.2
129	.30000	.20000	349.00	.1405-01	.1684-01	.1684-01	.9000	.6904-03	.8275-03	.5632	4.064	535.9
129	.30000	.40000	350.00	.1514-01	.1815-01	.1815-01	.9000	.7475-03	.8915-03	.6061	4.372	536.6
129	.30000	.50000	351.00	.1989-01	.2386-01	.2386-01	.9000	.9771-03	.1172-02	.7946	5.582	538.5
129	.30000	.90000	352.00	.7563-02	.9052-02	.9052-02	.9000	.3715-03	.4447-03	.3053	2.283	530.0
129	.40000	.10000+00	353.00	.3690-01	.4431-01	.4431-01	.9000	.1813-02	.2176-02	1.467	10.72	542.6
129	.40000	.20000	354.00	.3634-01	.4365-01	.4365-01	.9000	.1785-02	.2144-02	1.440	10.18	544.9
129	.40000	.50000	356.00	.2366-01	.2839-01	.2839-01	.9000	.1162-02	.1394-02	.9432	6.836	540.1
129	.40000	.90000	358.00	.1489-01	.1784-01	.1784-01	.9000	.7315-03	.8764-03	.5984	4.497	533.7
129	.50000	.50000-01	359.00	.5043-01	.6077-01	.6077-01	.9000	.2477-02	.2985-02	1.968	15.28	557.2
129	.50000	.70000	360.00	.1563-01	.1874-01	.1874-01	.9000	.7679-03	.9204-03	.6264	5.004	536.0
129	.50000	.90000	361.00	.1618-01	.1939-01	.1939-01	.9000	.7948-03	.9523-03	.6496	4.617	534.4
129	.60000	.50000-01	362.00	.5620-01	.6774-01	.6774-01	.9000	.2761-02	.3327-02	2.192	16.72	557.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT02)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
129	.60000	.10000+00	363 00	.5248-01	.6315-01	.6315-01	.9000	.2578-02	.3102-02	2.062	15.51	551.9
129	.60000	.20000	364.00	.4608-01	.5543-01	.5543-01	.9000	.2264-02	.2723-02	1.815	13.30	550.1
129	.60000	.40000	365.00	.4190-01	.5034-01	.5034-01	.9000	.2058-02	.2473-02	1.659	11.61	545.6
129	.60000	.50000	366 00	.3240-01	.3890-01	.3890-01	.9000	.1592-02	.1911-02	1.288	9.112	542.7
129	.60000	.70000	367 00	.1424-01	.1706-01	.1706-01	.9000	.6994-03	.8381-03	.5710	4.564	535.2
129	.60000	.90000	368 00	.1382-01	.1655-01	.1655-01	.9000	.6789-03	.8130-03	.5564	4.157	532.2
129	.70000	.50000-01	369 00	.7090-01	.8560-01	.8560-01	.9000	.3483-02	.4205-02	2.741	21.97	564.7
129	.70000	.70000	370 00	.1488-01	.1783-01	.1783-01	.9000	.7309-03	.8760-03	.5965	4.853	535.6
129	.70000	.90000	371 00	.3982-02	.4769-02	.4769-02	.9000	.1956-03	.2343-03	1.600	1.236	533.4
129	.80000	.50000-01	372.00	.7133-03	.8871-03	.8871-03	.9000	.3504-04	.4358-04	.2418-01	.1753	661.6
129	.80000	.10000+00	373 00	.7100-01	.8554-01	.8554-01	.9000	.3487-02	.4202-02	2.773	20.95	556.5
129	.80000	.40000	374 00	.3959-01	.4758-01	.4758-01	.9000	.1945-02	.2337-02	1.565	11.23	546.8
129	.80000	.50000	375 00	.3156-01	.3790-01	.3790-01	.9000	.1550-02	.1862-02	1.254	8.601	542.9
129	.80000	.70000	376 00	.1718-01	.2060-01	.2060-01	.9000	.8439-03	.1012-02	.6877	5.491	536.8
129	.80000	.90000	377 00	.1369-01	.1640-01	.1640-01	.9000	.6725-03	.8055-03	.5502	4.250	533.4
129	.90000	.10000+00	378 00	.7292-01	.8787-01	.8787-01	.9000	.3582-02	.4316-02	2.845	20.31	557.3
129	.90000	.30000	379.00	.4246-01	.5102-01	.5102-01	.9000	.2086-02	.2506-02	1.680	12.26	546.2
129	.90000	.50000	380.00	.2122-01	.2544-01	.2544-01	.9000	.1042-02	.1250-02	.8491	5.932	537.1
129	.90000	.70000	381.00	.1641-01	.1966-01	.1966-01	.9000	.8060-03	.9655-03	.6596	4.797	533.4
129	.90000	.90000	382 00	.1629-01	.1952-01	.1952-01	.9000	.8001-03	.9589-03	.6531	4.904	535.4
129	.95000	.30000	383.00	.3709-01	.4455-01	.4455-01	.9000	.1822-02	.2188-02	1.471	10.46	544.6
129	.95000	.50000	384 00	.3035-01	.3644-01	.3644-01	.9000	.1491-02	.1790-02	1.207	8.544	542.2
129	.95000	.90000	385 00	.1648-01	.1974-01	.1974-01	.9000	.8096-03	.9698-03	.6622	4.494	533.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT03)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
152	1.983	7.980	29.96	-2.027	434.4	1309.	95.27	.4523-01	2.016	3818.	.1281-02	.7667-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
152	3505-01	.2881-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
152	.10000+00	.10000+00	340 00	3004-01	.3618-01	.3618-01	.9000	.1053-02	.1268-02	.8133	5.774	536.4
152	.10000+00	.30000	341.00	1258-01	.1514-01	.1514-01	.9000	.4411-03	.5305-03	.3424	2.515	532.5
152	.10000+00	.50000	342.00	.1245-01	.1497-01	.1497-01	.9000	.4363-03	.5248-03	.3388	2.574	532.3
152	.20000	.10000+00	343.00	.2526-01	.3039-01	.3039-01	.9000	.8855-03	.1065-02	.6865	4.960	533.4
152	.20000	.20000	344.00	.1448-01	.1741-01	.1741-01	.9000	.5074-03	.6101-03	.3944	2.928	531.3
152	.20000	.40000	345 00	.9791-02	.1177-01	.1177-01	.9000	.3432-03	.4125-03	.2671	1.914	530.3
152	.20000	.60000	346 00	.6708-02	.8060-02	.8060-02	.9000	.2351-03	.2825-03	.1834	1.328	528.7
152	.20000	.80000	347.00	.2745-02	.3296-02	.3296-02	.9000	.9620-04	.1155-03	.7528-01	.5373	526.2
152	.30000	.50000-01	348.00	.2318-01	.2789-01	.2789-01	.9000	.8125-03	.9776-03	.6296	4.748	533.8
152	.30000	.20000	349 00	.9167-02	.1102-01	.1102-01	.9000	.3213-03	.3861-03	.2505	1.814	529.0
152	.30000	.40000	350 00	.6446-02	.7745-02	.7745-02	.9000	.2259-03	.2715-03	.1763	1.277	528.2
152	.30000	.50000	351 00	.7273-02	.8739-02	.8739-02	.9000	.2549-03	.3063-03	.1989	1.404	528.6
152	.30000	.90000	352 00	.4089-02	.4912-02	.4912-02	.9000	.1433-03	.1722-03	.1120	.8391	527.1
152	.40000	.10000+00	353.00	.1643-01	.1975-01	.1975-01	.9000	.5759-03	.6923-03	.4482	3.296	530.4
152	.40000	.20000	354.00	.1114-01	.1339-01	.1339-01	.9000	.3905-03	.4693-03	.3043	2.168	529.5
152	.40000	.50000	356 00	.5947-02	.7145-02	.7145-02	.9000	.2084-03	.2504-03	.1626	1.185	528.5
152	.40000	.90000	358.00	.5106-02	.6133-02	.6133-02	.9000	.1790-03	.2150-03	.1398	1.054	527.3
152	.50000	.50000-01	359.00	.3287-01	.3961-01	.3961-01	.9000	.1152-02	.1388-02	.8864	6.945	539.4
152	.50000	.70000	360.00	.5028-02	.6042-02	.6042-02	.9000	.1762-03	.2118-03	.1375	1.103	528.4
152	.50000	.90000	361 00	.6470-02	.7774-02	.7774-02	.9000	.2268-03	.2725-03	.1770	1.262	528.1
152	.60000	.50000-01	362 00	.4413-01	.5322-01	.5322-01	.9000	.1547-02	.1865-02	.1185	9.114	542.4

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-O VERTICAL TAIL

(R4UT03)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
152	60000	.10000+00	363.00	3872-01	.4664-01	.4664-01	.9000	.1357-02	.1635-02	1.046	7.919	538.3
152	.60000	.20000	364.00	2940-01	.3539-01	.3539-01	.9000	.1030-02	.1241-02	.7960	5.876	536.2
152	.60000	.40000	365.00	2432-01	.2925-01	.2925-01	.9000	.8523-03	.1025-02	.6610	4.656	533.1
152	60000	.50000	366.00	.2022-01	.2432-01	.2432-01	.9000	.7087-03	.8524-03	.5500	3.913	532.6
152	60000	.70000	367.00	.8684-02	.1044-01	.1044-01	.9000	.3044-03	.3659-03	.2371	1.900	529.7
152	60000	.90000	368.00	.8952-02	.1075-01	.1075-01	.9000	.3138-03	.3769-03	.2450	1.834	527.9
152	.70000	.50000-01	369.00	4945-01	.5970-01	.5970-01	.9000	.1733-02	.2092-02	1.321	10.69	546.3
152	70000	.70000	370.00	1470-01	.1768-01	.1768-01	.9000	.5154-03	.6197-03	4.007	3.267	531.3
152	70000	.90000	371.00	3988-02	.4797-02	.4797-02	.9000	.1398-03	.1681-03	.1085	.8384	532.5
152	80000	.50000-01	372.00	.2407-02	.3057-02	.3057-02	.9000	.8438-04	.1072-03	.5194-01	.3711	693.1
152	80000	.10000+00	373.00	.4871-01	.5874-01	.5874-01	.9000	.1707-02	.2059-02	1.308	9.956	542.4
152	.80000	.40000	374.00	.3017-01	.3633-01	.3633-01	.9000	.1057-02	.1273-02	.8163	5.888	536.7
152	.80000	.50000	375.00	.2397-01	.2884-01	.2884-01	.9000	.8401-03	.1011-02	.6506	4.482	534.3
152	.80000	.70000	376.00	.1531-01	.1841-01	.1841-01	.9000	.5367-03	.6454-03	.4171	3.340	531.6
152	80000	.90000	377.00	.1435-01	.1725-01	.1725-01	.9000	.5031-03	.6047-03	.3918	3.031	529.9
152	90000	.10000+00	378.00	.5316-01	.6414-01	.6414-01	.9000	.1863-02	.2248-02	1.424	10.24	544.2
152	90000	.30000	379.00	.2983-01	.3591-01	.3591-01	.9000	.1046-02	.1259-02	.8078	5.924	536.1
152	.90000	.50000	380.00	.4371-02	.5251-02	.5251-02	.9000	.1532-03	.1840-03	.1196	.8394	528.0
152	90000	.70000	381.00	.1279-01	.1537-01	.1537-01	.9000	.4483-03	.5388-03	.3495	2.548	529.0
152	90000	.90000	382.00	.1317-01	.1583-01	.1583-01	.9000	.4616-03	.5547-03	.3596	2.708	529.6
152	.95000	.30000	383.00	.2653-01	.3193-01	.3193-01	.9000	.9300-03	.1119-02	.7195	5.145	535.0
152	.95000	.50000	384.00	.2336-01	.2811-01	.2811-01	.9000	.8189-03	.9853-03	.6345	4.511	533.8
152	.95000	.90000	385.00	.1669-01	.2006-01	.2006-01	.9000	.5850-03	.7031-03	.4558	3.100	529.5

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2635

OH84B 60-O VERTICAL TAIL

(R4UT03)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -2.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
113	2.997	7.990	29.96	-2.021	672.2	1327	96 36	.6942-01	3.102	3845.	.1944-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
113	.4358-01	.2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TH DEG. R
113	.10000+00	.10000+00	340.00	.2853-01	.3429-01	.3429-01	.9000	.1243-02	.1494-02	.9817	6.968	537.0
113	.10000+00	.30000	341.00	.1599-01	.1920-01	.1920-01	.9000	.6969-03	.8369-03	.5530	4.061	533.2
113	.10000+00	.50000	342.00	.1519-01	.1823-01	.1823-01	.9000	.6618-03	.7946-03	.5255	3.992	532.7
113	.20000	.10000+00	343.00	.2420-01	.2907-01	.2907-01	.9000	.1055-02	.1267-02	.8358	6.037	534.3
113	.20000	.20000	344.00	.1455-01	.1746-01	.1746-01	.9000	.6341-03	.7611-03	.5039	3.740	531.9
113	.20000	.40000	345.00	.1032-01	.1238-01	.1238-01	.9000	.4497-03	.5396-03	.3584	2.569	529.8
113	.20000	.60000	346.00	.7821-02	.9381-02	.9381-02	.9000	.3409-03	.4089-03	.2719	1.969	528.9
113	.20000	.80000	347.00	.3295-02	.3949-02	.3949-02	.9000	.1436-03	.1721-03	.1150	.8209	525.8
113	.30000	.50000-01	348.00	.2388-01	.2869-01	.2869-01	.9000	.1041-02	.1251-02	.8236	6.205	535.4
113	.30000	.20000	349.00	.1050-01	.1259-01	.1259-01	.9000	.4575-03	.5488-03	.3647	2.640	529.5
113	.30000	.40000	350.00	.7422-02	.8902-02	.8902-02	.9000	.3235-03	.3880-03	.2581	1.870	528.7
113	.30000	.50000	351.00	.7913-02	.9492-02	.9492-02	.9000	.3449-03	.4137-03	.2751	1.942	529.0
113	.30000	.90000	352.00	.4051-02	.4856-02	.4856-02	.9000	.1766-03	.2116-03	.1414	1.059	526.0
113	.40000	.10000+00	353.00	.1993-01	.2392-01	.2392-01	.9000	.8686-03	.1043-02	.6904	5.074	531.9
113	.40000	.20000	354.00	.1713-01	.2056-01	.2056-01	.9000	.7464-03	.8959-03	.5933	4.222	531.8
113	.40000	.50000	356.00	.9879-02	.1185-01	.1185-01	.9000	.4306-03	.5165-03	.3433	2.502	529.3
113	.40000	.90000	358.00	.6269-02	.7516-02	.7516-02	.9000	.2732-03	.3276-03	.2183	1.646	527.5
113	.50000	.50000-01	359.00	.3876-01	.4665-01	.4665-01	.9000	.1689-02	.2033-02	1.325	10.36	542.5
113	.50000	.70000	360.00	.8085-02	.9698-02	.9698-02	.9000	.3524-03	.4226-03	.2811	2.254	528.8
113	.50000	.90000	361.00	.8342-02	.1000-01	.1000-01	.9000	.3636-03	.4360-03	.2903	2.070	528.2
113	.60000	.50000-01	362.00	.4981-01	.6002-01	.6002-01	.9000	.2171-02	.2616-02	1.693	12.99	546.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT03)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
113	.60000	.10000+00	363.00	.4503-01	.5417-01	.5417-01	.9000	.1963-02	.2361-02	1.544	11.68	540.2
113	.60000	.20000	364.00	.3332-01	.4006-01	.4006-01	.9000	.1452-02	.1746-02	1.145	8.442	538.3
113	.60000	.40000	365 00	.3366-01	.4045-01	.4045-01	.9000	.1467-02	.1763-02	1.160	8.162	535.8
113	.60000	.50000	366 00	.2906-01	.3491-01	.3491-01	.9000	.1266-02	.1522-02	1.001	7.113	535.8
113	.60000	.70000	367 00	.1307-01	.1569-01	.1569-01	.9000	.5698-03	.6838-03	.4535	3.633	530.8
113	.60000	.90000	368 00	.1135-01	.1361-01	.1361-01	.9000	.4946-03	.5931-03	.3950	2.957	528.0
113	.70000	.50000-01	369.00	.5421-01	.6539-01	.6539-01	.9000	.2363-02	.2850-02	1.833	14.79	551.0
113	.70000	.70000	370 00	.1514-01	.1817-01	.1817-01	.9000	.6598-03	.7919-03	.5249	4.280	531.2
113	.70000	.90000	371.00	.3927-02	.4714-02	.4714-02	.9000	.1712-03	.2055-03	.1360	1.051	531.9
113	.80000	.50000-01	372 00	.4046-02	.5155-02	.5155-02	.9000	.1763-03	.2247-03	.1087	.7704	710.2
113	.80000	.10000+00	373.00	.5184-01	.6243-01	.6243-01	.9000	.2259-02	.2721-02	1.767	13.43	544.7
113	.80000	.40000	374 00	.3177-01	.3819-01	.3819-01	.9000	.1384-02	.1665-02	1.091	7.865	538.4
113	.80000	.50000	375.00	.2638-01	.3170-01	.3170-01	.9000	.1150-02	.1382-02	.9094	6.260	535.8
113	.80000	.70000	376 00	.1612-01	.1934-01	.1934-01	.9000	.7024-03	.8431-03	.5584	4.471	531.7
113	.80000	.90000	377 00	.1400-01	.1679-01	.1679-01	.9000	.6100-03	.7319-03	.4860	3.761	529.9
113	.90000	.10000+00	378 00	.5403-01	.6510-01	.6510-01	.9000	.2355-02	.2837-02	1.837	13.19	546.4
113	.90000	.30000	379 00	.3079-01	.3701-01	.3701-01	.9000	.1342-02	.1613-02	1.059	7.763	537.3
113	.90000	.50000	380 00	.6523-02	.7822-02	.7822-02	.9000	.2843-03	.3409-03	.2271	1.594	528.0
113	.90000	.70000	381.00	.1356-01	.1627-01	.1627-01	.9000	.5910-03	.7089-03	.4712	3.434	529.3
113	.90000	.90000	382 00	.1440-01	.1728-01	.1728-01	.9000	.6275-03	.7529-03	.4999	3.764	530.0
113	.95000	.30000	383.00	.2774-01	.3334-01	.3334-01	.9000	.1209-02	.1453-02	.9554	6.826	536.5
113	.95000	.50000	384 00	.2480-01	.2980-01	.2980-01	.9000	.1081-02	.1299-02	.8552	6.075	535.4
113	.95000	.90000	385 00	.1697-01	.2036-01	.2036-01	.9000	.7396-03	.8874-03	.5894	4.008	529.8



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT03)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
126	3 688	8.000	29 95	-2.013	853 6	1352	97.95	.8744-01	3.917	3881.	.2409-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
126	.4913-01	2107-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
126	.10000+00	.10000+00	340.00	.2761-01	.3311-01	.3311-01	.9000	.1356-02	.1627-02	1.104	7.829	538.1
126	.10000+00	.30000	341.00	.1964-01	.2355-01	.2355-01	.9000	.9651-03	.1157-02	.7867	5.768	536.6
126	.10000+00	.50000	342.00	.1492-01	.1788-01	.1788-01	.9000	.7330-03	.8783-03	.5990	4.546	534.4
126	.20000	.10000+00	343.00	.2303-01	.2761-01	.2761-01	.9000	.1132-02	.1356-02	.9240	6.670	535.3
126	.20000	.20000	344.00	.1432-01	.1715-01	.1715-01	.9000	.7035-03	.8426-03	.5760	4.273	532.9
126	.20000	.40000	345.00	.9805-02	.1174-01	.1174-01	.9000	.4817-03	.5768-03	.3951	2.830	531.6
126	.20000	.60000	346.00	.8035-02	.9617-02	.9617-02	.9000	.3948-03	.4725-03	.3243	2.347	530.2
126	.20000	.80000	347.00	.3147-02	.3764-02	.3764-02	.9000	.1546-03	.1849-03	.1275	.9094	527.2
126	.30000	.50000-01	348.00	.2527-01	.3030-01	.3030-01	.9000	.1242-02	.1489-02	1.010	7.603	537.9
126	.30000	.20000	349.00	.1167-01	.1397-01	.1397-01	.9000	.5733-03	.6865-03	.4703	3.401	531.4
126	.30000	.40000	350.00	.8617-02	.1031-01	.1031-01	.9000	.4234-03	.5068-03	.3478	2.517	530.2
126	.30000	.50000	351.00	.9513-02	.1139-01	.1139-01	.9000	.4674-03	.5595-03	.3837	2.707	530.7
126	.30000	.90000	352.00	.4020-02	.4809-02	.4809-02	.9000	.1975-03	.2363-03	.1628	1.219	527.4
126	.40000	.10000+00	353.00	.2320-01	.2779-01	.2779-01	.9000	.1140-02	.1366-02	.9310	6.832	534.8
126	.40000	.20000	354.00	.2006-01	.2403-01	.2403-01	.9000	.9854-03	.1181-02	.8049	5.719	534.8
126	.40000	.50000	356.00	.1166-01	.1396-01	.1396-01	.9000	.5728-03	.6860-03	.4695	3.417	532.1
126	.40000	.90000	358.00	.7233-02	.8655-02	.8655-02	.9000	.3554-03	.4252-03	.2924	2.202	529.0
126	.50000	.50000-01	359.00	.4353-01	.5233-01	.5233-01	.9000	.2139-02	.2571-02	1.719	13.41	548.0
126	.50000	.70000	360.00	.9017-02	.1080-01	.1080-01	.9000	.4431-03	.5305-03	.3633	2.909	531.6
126	.50000	.90000	361.00	.9389-02	.1124-01	.1124-01	.9000	.4613-03	.5522-03	.3789	2.698	530.3
126	.60000	.50000-01	362.00	.5166-01	.6217-01	.6217-01	.9000	.2538-02	.3055-02	2.030	15.53	551.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT03)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
126	.60000	.10000+00	363 00	.4177-01	.5015-01	.5015-01	.9000	.2052-02	.2464-02	1.660	12.54	543.1
126	.60000	.20000	364.00	.3486-01	.4184-01	.4184-01	.9000	.1713-02	.2056-02	1.388	10.22	541.5
126	.60000	.40000	365.00	.3119-01	.3741-01	.3741-01	.9000	.1533-02	.1838-02	1.246	8.756	538.5
126	.60000	.50000	366.00	.2556-01	.3066-01	.3066-01	.9000	.1256-02	.1506-02	1.022	7.251	537.9
126	.60000	.70000	367 00	.1137-01	.1361-01	.1361-01	.9000	.5585-03	.6689-03	.4575	3.661	532.6
126	.60000	.90000	368.00	.1092-01	.1308-01	.1308-01	.9000	.5368-03	.6424-03	.4412	3.300	529.8
126	.70000	.50000-01	369.00	.5639-01	.6793-01	.6793-01	.9000	.2771-02	.3338-02	2.204	17.75	556.1
126	.70000	.70000	370 00	.1387-01	.1661-01	.1661-01	.9000	.6814-03	.8162-03	.5577	4.543	533.1
126	.70000	.90000	371 00	.3757-02	.4499-02	.4499-02	.9000	.1846-03	.2211-03	.1512	1.168	532.6
126	.80000	.50000-01	372 00	.1788-02	.2278-02	.2278-02	.9000	.8785-04	.1119-03	.5521-01	.3889	723.2
126	.80000	.10000+00	373 00	.5307-01	.6381-01	.6381-01	.9000	.2608-02	.3135-02	2.093	15.88	548.8
126	.80000	.40000	374 00	.3153-01	.3783-01	.3783-01	.9000	.1549-02	.1859-02	1.256	9.045	540.6
126	.80000	.50000	375.00	.2576-01	.3089-01	.3089-01	.9000	.1266-02	.1518-02	1.029	7.071	538.8
126	.80000	.70000	376.00	.1581-01	.1894-01	.1894-01	.9000	.7767-03	.9305-03	.6352	5.080	533.9
126	.80000	.90000	377 00	.1359-01	.1627-01	.1627-01	.9000	.6676-03	.7993-03	.5477	4.235	531.3
126	.90000	.10000+00	378.00	.5381-01	.6474-01	.6474-01	.9000	.2644-02	.3181-02	2.118	15.17	550.6
126	.90000	.30000	379.00	.3012-01	.3614-01	.3614-01	.9000	.1480-02	.1775-02	1.202	8.804	539.3
126	.90000	.50000	380.00	.8247-02	.9871-02	.9871-02	.9000	.4052-03	.4850-03	.3328	2.333	530.3
126	.90000	.70000	381.00	.1314-01	.1574-01	.1574-01	.9000	.6458-03	.7732-03	.5300	3.859	531.0
126	.90000	.90000	382 00	.1322-01	.1584-01	.1584-01	.9000	.6498-03	.7781-03	.5327	4.007	531.9
126	.95000	.30000	383.00	.2755-01	.3305-01	.3305-01	.9000	.1354-02	.1624-02	1.099	7.844	539.5
126	.95000	.50000	384.00	.2405-01	.2885-01	.2885-01	.9000	.1182-02	.1417-02	.9615	6.820	538.1
126	.95000	.90000	385.00	.1497-01	.1792-01	.1792-01	.9000	.7355-03	.8805-03	.6037	4.103	530.8

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O VERTICAL TAIL

(R4UT04)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
149	2.015	7.980	29.95	-1 011	435.2	1297.	94.40	.4531-01	2.020	3801.	.1295-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
149	.3503-01	.2862-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
149	.10000+00	.10000+00	340.00	.2898-01	.3495-01	.3495-01	.9000	.1015-02	.1224-02	.7713	5.474	537.0
149	.10000+00	.30000	341.00	.1255-01	.1512-01	.1512-01	.9000	.4395-03	.5295-03	.3353	2.462	533.7
149	.10000+00	.50000	342.00	.1074-01	.1294-01	.1294-01	.9000	.3762-03	.4532-03	.2873	2.181	533.1
149	.20000	.10000+00	343.00	.2643-01	.3185-01	.3185-01	.9000	.9259-03	.1116-02	.7056	5.095	534.6
149	.20000	.20000	344.00	.1536-01	.1850-01	.1850-01	.9000	.5380-03	.6479-03	.4110	3.050	532.6
149	.20000	.40000	345.00	.1044-01	.1256-01	.1256-01	.9000	.3656-03	.4401-03	.2800	2.007	530.7
149	.20000	.60000	346.00	.6381-02	.7678-02	.7678-02	.9000	.2235-03	.2689-03	.1715	1.242	529.2
149	.20000	.80000	347.00	.2284-02	.2747-02	.2747-02	.9000	.8002-04	.9623-04	.6158-01	.4393	527.1
149	.30000	.50000-01	348.00	.2206-01	.2658-01	.2658-01	.9000	.7727-03	.9310-03	.5893	4.443	534.0
149	.30000	.20000	349.00	.8727-02	.1050-01	.1050-01	.9000	.3057-03	.3679-03	.2344	1.696	530.0
149	.30000	.40000	350.00	.6268-02	.7541-02	.7541-02	.9000	.2195-03	.2641-03	.1686	1.221	528.8
149	.30000	.50000	351.00	.5891-02	.7087-02	.7087-02	.9000	.2063-03	.2482-03	.1585	1.119	528.4
149	.30000	.90000	352.00	.2492-02	.2996-02	.2996-02	.9000	.8727-04	.1050-03	.6718-01	.5033	526.9
149	.40000	.10000+00	353.00	.1357-01	.1634-01	.1634-01	.9000	.4754-03	.5722-03	.3645	2.681	530.1
149	.40000	.20000	354.00	.1018-01	.1226-01	.1226-01	.9000	.3567-03	.4293-03	.2734	1.948	530.1
149	.40000	.50000	356.00	.6497-02	.7817-02	.7817-02	.9000	.2276-03	.2738-03	.1748	1.274	528.5
149	.40000	.90000	358.00	.3138-02	.3774-02	.3774-02	.9000	.1099-03	.1322-03	.8458-01	.6377	527.3
149	.50000	.50000-01	359.00	.2722-01	.3282-01	.3282-01	.9000	.9536-03	.1150-02	.7254	5.694	536.0
149	.50000	.70000	360.00	.5010-02	.6027-02	.6027-02	.9000	.1755-03	.2111-03	.1348	1.082	528.3
149	.50000	.90000	361.00	.5004-02	.6019-02	.6019-02	.9000	.1753-03	.2108-03	.1347	.9600	528.4
149	.60000	.50000-01	362.00	.3508-01	.4231-01	.4231-01	.9000	.1229-02	.1482-02	.9319	7.180	538.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2640

## OH84B 60-0 VERTICAL TAIL

(R4UT04)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
149	60000	.10000+00	363.00	.2787-01	.3358-01	.3358-01	.9000	.9762-03	.1176-02	.7442	5.648	534.3
149	.60000	.20000	364.00	.1882-01	.2266-01	.2266-01	.9000	.6591-03	.7938-03	.5035	3.724	532.7
149	.60000	.40000	365 00	.1543-01	.1857-01	.1857-01	.9000	.5403-03	.6504-03	.4141	2.921	530.3
149	.60000	.50000	366.00	.1309-01	.1576-01	.1576-01	.9000	.4586-03	.5520-03	.3518	2.507	529.6
149	.60000	.70000	367.00	.7860-02	.9457-02	.9457-02	.9000	.2753-03	.3313-03	.2114	1.695	528.9
149	.60000	.90000	368 00	.7863-02	.9458-02	.9458-02	.9000	.2754-03	.3313-03	.2119	1.587	527.5
149	.70000	.50000-01	369 00	.4076-01	.4919-01	.4919-01	.9000	.1428-02	.1723-02	1.080	8.766	540.2
149	.70000	.70000	370.00	.1090-01	.1311-01	.1311-01	.9000	.3817-03	.4593-03	.2929	2.391	529.1
149	.70000	.90000	371 00	.3267-02	.3935-02	.3935-02	.9000	.1144-03	.1378-03	.8748-01	.6761	532.2
149	.80000	.50000-01	372 00	.1187-02	.1561-02	.1561-02	.9000	.4157-04	.5469-04	.2247-01	.1559	756.1
149	.80000	.10000+00	373.00	.4222-01	.5092-01	.5092-01	.9000	.1479-02	.1783-02	1.123	8.565	537.5
149	.80000	.40000	374.00	.2530-01	.3048-01	.3048-01	.9000	.8863-03	.1068-02	.6763	4.886	533.6
149	.80000	.50000	375.00	.2054-01	.2473-01	.2473-01	.9000	.7193-03	.8663-03	.5498	3.791	532.4
149	.80000	.70000	376 00	.1352-01	.1627-01	.1627-01	.9000	.4735-03	.5699-03	.3630	2.909	530.0
149	.80000	.90000	377 00	.1237-01	.1488-01	.1488-01	.9000	.4332-03	.5212-03	.3327	2.576	528.7
149	.90000	.10000+00	378.00	.5173-01	.6243-01	.6243-01	.9000	.1812-02	.2187-02	1.371	9.874	540.0
149	.90000	.30000	379 00	.2657-01	.3201-01	.3201-01	.9000	.9308-03	.1121-02	.7103	5.216	533.6
149	.90000	.50000	380 00	.3673-02	.4418-02	.4418-02	.9000	.1287-03	.1548-03	.9893-01	.6944	527.8
149	.90000	.70000	381.00	.1068-01	.1285-01	.1285-01	.9000	.3742-03	.4502-03	.2877	2.098	528.0
149	.90000	.90000	382 00	.1045-01	.1258-01	.1258-01	.9000	.3662-03	.4405-03	.2813	2.120	528.3
149	.95000	.30000	383 00	.2507-01	.3019-01	.3019-01	.9000	.8780-03	.1058-02	.6707	4.801	532.8
149	.95000	.50000	384.00	.2104-01	.2534-01	.2534-01	.9000	.7370-03	.8876-03	.5634	4.009	532.2
149	.95000	.90000	385 00	.1463-01	.1760-01	.1760-01	.9000	.5125-03	.6166-03	.3938	2.680	528.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2641

OH84B 60-0 VERTICAL TAIL

(R4UT04)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
110	3.010	7.990	29.96	-1.9974	670.7	1321.	95.92	.6926-01	3.095	3836.	.1949-02	.7719-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
110	.4350-01	.2338-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
110	.10000+00	.10000+00	340.00	.2644-01	.3180-01	.3180-01	.9000	.1150-02	.1383-02	.9013	6.397	537.1
110	.10000+00	.30000	341.00	.1449-01	.1741-01	.1741-01	.9000	.6304-03	.7575-03	.4963	3.645	533.5
110	.10000+00	.50000	342.00	.1536-01	.1845-01	.1845-01	.9000	.6681-03	.8027-03	.5262	3.996	533.1
110	.20000	.10000+00	343.00	.2181-01	.2622-01	.2622-01	.9000	.9489-03	.1140-02	.7458	5.385	534.7
110	.20000	.20000	344.00	.1198-01	.1439-01	.1439-01	.9000	.5213-03	.6261-03	.4113	3.053	531.7
110	.20000	.40000	345.00	.1068-01	.1282-01	.1282-01	.9000	.4645-03	.5576-03	.3672	2.633	530.0
110	.20000	.60000	346.00	.6866-02	.8239-02	.8239-02	.9000	.2987-03	.3584-03	.2366	1.714	528.3
110	.20000	.80000	347.00	.3059-02	.3668-02	.3668-02	.9000	.1331-03	.1596-03	.1058	.7549	525.8
110	.30000	.50000-01	348.00	.2191-01	.2634-01	.2634-01	.9000	.9529-03	.1146-02	.7478	5.632	535.9
110	.30000	.20000	349.00	.8733-02	.1048-01	.1048-01	.9000	.3799-03	.4560-03	.3006	2.176	529.4
110	.30000	.40000	350.00	.7627-02	.9154-02	.9154-02	.9000	.3318-03	.3982-03	.2627	1.903	528.7
110	.30000	.50000	351.00	.7611-02	.9134-02	.9134-02	.9000	.3311-03	.3973-03	.2623	1.852	528.4
110	.30000	.90000	352.00	.3559-02	.4268-02	.4268-02	.9000	.1548-03	.1857-03	.1231	.9229	525.5
110	.40000	.10000+00	353.00	.1583-01	.1901-01	.1901-01	.9000	.6885-03	.8267-03	.5439	4.000	530.7
110	.40000	.20000	354.00	.1166-01	.1400-01	.1400-01	.9000	.5073-03	.6091-03	.4011	2.857	530.1
110	.40000	.50000	355.00	.7467-02	.8959-02	.8959-02	.9000	.3248-03	.3897-03	.2575	1.878	527.8
110	.40000	.90000	356.00	.4775-02	.5727-02	.5727-02	.9000	.2077-03	.2491-03	.1651	1.246	525.8
110	.50000	.50000-01	359.00	.3555-01	.4279-01	.4279-01	.9000	.1546-02	.1861-02	1.206	9.447	540.5
110	.50000	.70000	360.00	.5615-02	.6735-02	.6735-02	.9000	.2442-03	.2930-03	.1939	1.556	526.9
110	.50000	.90000	361.00	.6402-02	.7679-02	.7679-02	.9000	.2785-03	.3340-03	.2211	1.578	526.7
110	.60000	.50000-01	362.00	.4801-01	.5786-01	.5786-01	.9000	.2089-02	.2517-02	1.621	12.45	544.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2642

## OH84B 60-0 VERTICAL TAIL

(R4UT04)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
110	.60000	.10000+00	363.00	.4098-01	.4930-01	.4930-01	.9000	.1782-02	.2145-02	1.394	10.56	538.7
110	.60000	.20000	364.00	.3070-01	.3692-01	.3692-01	.9000	.1335-02	.1606-02	1.047	7.725	536.8
110	.60000	.40000	365.00	.2590-01	.3112-01	.3112-01	.9000	.1127-02	.1354-02	.8879	6.256	532.7
110	.60000	.50000	366.00	.2123-01	.2549-01	.2549-01	.9000	.9233-03	.1109-02	.7290	5.189	531.2
110	.60000	.70000	367.00	.9195-02	.1103-01	.1103-01	.9000	.4000-03	.4799-03	.3172	2.545	527.6
110	.60000	.90000	368.00	.8248-02	.9892-02	.9892-02	.9000	.3588-03	.4303-03	.2852	2.137	525.8
110	.70000	.50000-01	369.00	.5152-01	.6214-01	.6214-01	.9000	.2241-02	.2703-02	1.731	13.99	548.4
110	.70000	.70000	370.00	.1284-01	.1542-01	.1542-01	.9000	.5588-03	.6707-03	.4421	3.608	529.5
110	.70000	.90000	371.00	.3268-02	.3925-02	.3925-02	.9000	.1421-03	.1707-03	.1121	.8667	531.9
110	.80000	.50000-01	372.00	.2364-02	.3034-02	.3034-02	.9000	.1028-03	.1320-03	6154-01	.4337	722.2
110	.80000	.10000+00	373.00	.4850-01	.5841-01	.5841-01	.9000	.2110-02	.2541-02	1.643	12.50	542.2
110	.80000	.40000	374.00	.2976-01	.3579-01	.3579-01	.9000	.1295-02	.1557-02	1.015	7.324	536.5
110	.80000	.50000	375.00	.2337-01	.2809-01	.2809-01	.9000	.1017-02	.1222-02	.8003	5.515	533.6
110	.80000	.70000	376.00	.1378-01	.1655-01	.1655-01	.9000	.5995-03	.7198-03	.4738	3.797	530.3
110	.80000	.90000	377.00	.1242-01	.1491-01	.1491-01	.9000	.5404-03	.6486-03	.4281	3.315	528.5
110	.90000	.10000+00	378.00	.5138-01	.6190-01	.6190-01	.9000	.2235-02	.2693-02	1.737	12.48	543.6
110	.90000	.30000	379.00	.2803-01	.3370-01	.3370-01	.9000	.1219-02	.1466-02	.9574	7.024	535.4
110	.90000	.50000	380.00	.5193-02	.6228-02	.6228-02	.9000	.2259-03	.2709-03	.1795	1.261	526.1
110	.90000	.70000	381.00	.1196-01	.1435-01	.1435-01	.9000	.5201-03	.6240-03	.4122	3.006	528.1
110	.90000	.90000	382.00	.1046-01	.1255-01	.1255-01	.9000	.4551-03	.5461-03	.3605	2.717	528.5
110	.95000	.30000	383.00	.2433-01	.2924-01	.2924-01	.9000	.1058-02	.1272-02	.8322	5.953	534.3
110	.95000	.50000	384.00	.2276-01	.2735-01	.2735-01	.9000	.9900-03	.1190-02	.7792	5.540	533.8
110	.95000	.90000	385.00	.1461-01	.1754-01	.1754-01	.9000	.6357-03	.7629-03	.5035	3.426	528.7

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2643

## OH84B 60-O VERTICAL TAIL

(R4UT04)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
122	3.694	8 000	30.04	-.9752	852 2	1349.	97.73	.8729-01	3.911	3877.	.2411-02	.7864-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
122	.4907-01	.2106-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG R
122	.10000+00	.10000+00	340.00	.2696-01	.3235-01	.3235-01	.9000	.1323-02	.1588-02	1 070	7.584	539.8
122	.10000+00	.30000	341.00	.1574-01	.1887-01	.1887-01	.9000	.7723-03	.9259-03	.6276	4.603	536.0
122	.10000+00	.50000	342.00	.1542-01	.1848-01	.1848-01	.9000	.7565-03	.9068-03	.6156	4.670	535.0
122	.20000	.10000+00	343.00	.2098-01	.2515-01	.2515-01	.9000	.1029-02	.1234-02	.8365	6.036	536.0
122	.20000	.20000	344.00	.1217-01	.1458-01	.1458-01	.9000	.5970-03	.7153-03	.4867	3.610	533.4
122	.20000	.40000	345 00	.1148-01	.1375-01	.1375-01	.9000	.5635-03	.6750-03	.4600	3.294	532.3
122	.20000	.60000	346 00	.7026-02	.8411-02	.8411-02	.9000	.3448-03	.4128-03	.2825	2.045	529.5
122	.20000	.80000	347.00	.3175-02	.3798-02	.3798-02	.9000	.1558-03	.1864-03	.1280	9131	527.1
122	.30000	.50000-01	348.00	.2297-01	.2756-01	.2756-01	.9000	.1127-02	.1352-02	.9128	6.865	538.9
122	.30000	.20000	349.00	.1008-01	.1208-01	.1208-01	.9000	.4949-03	.5927-03	.4044	2.925	531.4
122	.30000	.40000	350 00	.7844-02	.9390-02	.9390-02	.9000	.3849-03	.4608-03	.3152	2.281	529.9
122	.30000	.50000	351 00	.7849-02	.9396-02	.9396-02	.9000	.3852-03	.4611-03	.3154	2.226	529.7
122	.30000	.90000	352 00	.3376-02	.4039-02	.4039-02	.9000	.1657-03	.1982-03	.1362	1 020	526.7
122	.40000	.10000+00	353 00	.1930-01	.2313-01	.2313-01	.9000	.9471-03	.1135-02	.7716	5.665	534 0
122	.40000	.20000	354 00	.1421-01	.1703-01	.1703-01	.9000	.6975-03	.8356-03	.5689	4 046	533 0
122	.40000	.50000	356 00	.8784-02	.1052-01	.1052-01	.9000	.4311-03	.5162-03	.3527	2.569	530.4
122	.40000	.90000	358 00	.5178-02	.6196-02	.6196-02	.9000	.2541-03	.3041-03	.2085	1.572	528.0
122	.50000	.50000-01	359.00	.4114-01	.4948-01	.4948-01	.9000	.2019-02	.2428-02	1 615	12 60	548 7
122	.50000	.70000	360 00	.6581-02	.7879-02	.7879-02	.9000	.3230-03	.3866-03	.2645	2.120	529.6
122	.50000	.90000	361 00	.7340-02	.8786-02	.8786-02	.9000	.3602-03	.4312-03	.2953	2.105	528.9
122	.60000	.50000-01	362 00	.5323-01	.6410-01	.6410-01	.9000	.2612-02	.3146-02	2 079	15.90	553.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2644

## OH84B 60-0 VERTICAL TAIL

(R4UT04)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	4(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
122	60000	.10000+00	363 00	.4598-01	.5524-01	.5524-01	.9000	.2257-02	.2711-02	1.816	13.71	544.0
122	.60000	.20000	364.00	.3186-01	.3824-01	.3824-01	.9000	.1563-02	.1877-02	1.263	9.305	540.6
122	60000	.40000	365 00	.2757-01	.3307-01	.3307-01	.9000	.1353-02	.1623-02	1.097	7.713	537.7
122	60000	.50000	366.00	.2190-01	.2626-01	.2626-01	.9000	.1075-02	.1289-02	.8738	6.206	535.7
122	60000	.70000	367 00	.8973-02	.1074-01	.1074-01	.9000	.4404-03	.5273-03	.3603	2.886	530.5
122	.60000	.90000	368 00	.8828-02	.1056-01	.1056-01	.9000	.4332-03	.5185-03	.3554	2.660	528.4
122	.70000	.50000-01	369 00	.5538-01	.6673-01	.6673-01	.9000	.2718-02	.3275-02	2.154	17.34	556.1
122	70000	.70000	370 00	.1214-01	.1454-01	.1454-01	.9000	.5955-03	.7134-03	.4863	3.963	532.1
122	70000	.90000	371 00	.3299-02	.3952-02	.3952-02	.9000	.1619-03	.1940-03	.1322	1.022	532.1
122	80000	.50000-01	372 00	.1708-02	.2233-02	.2233-02	.9000	.8383-04	.1096-03	.4813-01	.3312	774.5
122	80000	.10000+00	373 00	.4972-01	.5978-01	.5978-01	.9000	.2440-02	.2934-02	1.955	14.84	547.6
122	80000	.40000	374 00	.3065-01	.3678-01	.3678-01	.9000	.1504-02	.1805-02	1.217	8.764	539.7
122	80000	.50000	375 00	.2440-01	.2926-01	.2926-01	.9000	.1197-02	.1436-02	.9714	6.682	537.4
122	80000	.70000	376 00	.1453-01	.1741-01	.1741-01	.9000	.7133-03	.8545-03	.5822	4.659	532.5
122	80000	.90000	377 00	.1246-01	.1492-01	.1492-01	.9000	.6114-03	.7321-03	.5001	3.868	530.7
122	.90000	.10000+00	378 00	.5215-01	.6273-01	.6273-01	.9000	.2559-02	.3079-02	2.047	14.67	549.0
122	90000	.30000	379 00	.2728-01	.3272-01	.3272-01	.9000	.1339-02	.1606-02	1.085	7.953	537.9
122	90000	.50000	380 00	.5770-02	.6905-02	.6905-02	.9000	.2832-03	.3389-03	.2321	1.629	528.9
122	90000	.70000	381 00	.1200-01	.1436-01	.1436-01	.9000	.5888-03	.7049-03	.4821	3.512	529.9
122	.90000	.90000	382 00	.1197-01	.1434-01	.1434-01	.9000	.5876-03	.7036-03	.4808	3.619	530.4
122	.95000	.30000	383 00	.2453-01	.2942-01	.2942-01	.9000	.1204-02	.1444-02	.9765	6.974	537.5
122	.95000	.50000	384 00	.2234-01	.2679-01	.2679-01	.9000	.1097-02	.1315-02	.8904	6.321	536.7
122	.95000	.90000	385 00	.1445-01	.1730-01	.1730-01	.9000	.7092-03	.8492-03	.5800	3.942	530.7



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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2645

OH84B 60-O VERTICAL TAIL

(R4UT06)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
10	.5027	7.900	29.95	4910-02	98.66	1239.	91.88	.1097-01	.4790	3712.	.3221-03	.7393-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
10	.1692-01	.5712-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
10	.10000+00	.10000+00	340 00	.2530-01	.3074-01	.3074-01	.9000	.4282-03	.5202-03	.2998	2.127	538.4
10	.10000+00	.30000	341.00	.8702-02	.1057-01	.1057-01	.9000	.1473-03	.1788-03	.1033	.7576	537.0
10	.10000+00	.50000	342.00	.5572-02	.6766-02	.6766-02	.9000	.9430-04	.1145-03	.6621-01	.5019	536.6
10	.20000	.10000+00	343.00	.2409-01	.2925-01	.2925-01	.9000	.4077-03	.4951-03	.2860	2.063	537.1
10	.20000	.20000	344.00	.9766-02	.1186-01	.1186-01	.9000	.1653-03	.2007-03	.1160	.8591	536.7
10	.20000	.40000	345 00	.4923-02	.5976-02	.5976-02	.9000	.8331-04	.1011-03	.5855-01	.4184	535.9
10	.20000	.60000	346 00	.3521-02	.4275-02	.4275-02	.9000	.5959-04	.7234-04	.4189-01	.3023	535.8
10	.20000	.80000	347 00	.1137-02	.1380-02	.1380-02	.9000	.1924-04	.2336-04	.1353-01	.9614-01	535.3
10	.30000	.50000-01	348 00	.3077-01	.3740-01	.3740-01	.9000	.5208-03	.6329-03	.3640	2.737	539.7
10	.30000	.20000	349 00	.8277-02	.1005-01	.1005-01	.9000	.1401-03	.1701-03	.9835-01	.7095	536.5
10	.30000	.40000	350 00	.4852-02	.5891-02	.5891-02	.9000	.8212-04	.9969-04	.5772-01	.4165	535.9
10	.30000	.50000	351 00	.4314-02	.5236-02	.5236-02	.9000	.7301-04	.8862-04	.5133-01	.3611	535.6
10	.30000	.90000	352 00	.3080-02	.3738-02	.3738-02	.9000	.5212-04	.6326-04	.3665-01	.2733	535.6
10	.40000	.10000+00	353 00	.1661-01	.2018-01	.2018-01	.9000	.2812-03	.3415-03	.1973	1.446	537.1
10	.40000	.20000	354 00	.1098-01	.1333-01	.1333-01	.9000	.1858-03	.2256-03	.1303	.9251	537.1
10	.40000	.50000	356 00	.5847-02	.7099-02	.7099-02	.9000	.9896-04	.1201-03	.6954-01	.5051	535.9
10	.40000	.90000	358 00	.3362-02	.4082-02	.4082-02	.9000	.5691-04	.6908-04	.3999-01	.3002	535.9
10	.50000	.50000-01	359 00	.3151-01	.3831-01	.3831-01	.9000	.5332-03	.6484-03	.3717	2.909	541.5
10	.50000	.70000	360 00	.2105-02	.2556-02	.2556-02	.9000	.3563-04	.4325-04	.2507-01	.2003	535.2
10	.50000	.90000	361 00	.3234-02	.3928-02	.3928-02	.9000	.5474-04	.6647-04	.3843-01	.2728	536.7
10	.60000	.50000-01	362 00	.3402-01	.4138-01	.4138-01	.9000	.5758-03	.7004-03	.4009	3.082	542.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL:

(R4UT06)

RUN NUMSEC	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
10	.60000	.10000+00	363.00	.2741-01	.3332-01	.3332-01	.9000	.4640-03	.5639-03	.3242	2.453	539.9
10	60000	.20000	364.00	.1391-01	.1690-01	.1690-01	.9000	.2355-03	.2861-03	.1649	1.216	538.3
10	60000	.40000	365.00	.9074-02	.1102-01	.1102-01	.9000	.1536-03	.1865-03	.1078	.7577	536.9
10	60000	.50000	366.00	.7109-02	.8631-02	.8631-02	.9000	.1203-03	.1461-03	.8451-01	.6000	536.2
10	60000	.70000	367.00	.3399-02	.4126-02	.4126-02	.9000	.5752-04	.6983-04	.4043-01	.3231	535.8
10	60000	.90000	368.00	.3789-02	.4599-02	.4599-02	.9000	.6412-04	.7784-04	.4508-01	.3362	535.6
10	70000	.50000-01	369.00	.3367-01	.4096-01	.4096-01	.9000	.5697-03	.6932-03	.3962	3.211	543.3
10	70000	.70000	370.00	.4428-02	.5376-02	.5376-02	.9000	.7494-04	.9098-04	.5265-01	.4282	536.2
10	70000	.90000	371.00	.3525-02	.4279-02	.4279-02	.9000	.5965-04	.7241-04	.4193-01	.3234	535.8
10	.80000	.50000-01	372.00	.2709-02	.3298-02	.3298-02	.9000	.4585-04	.5582-04	.3179-01	.2441	545.2
10	80000	.10000+00	373.00	.3457-01	.4203-01	.4203-01	.9000	.5850-03	.7114-03	.4078	3.105	541.5
10	80000	.40000	374.00	.1161-01	.1410-01	.1410-01	.9000	.1965-03	.2387-03	.1377	.9928	537.8
10	.80000	.50000	375.00	.8077-02	.9809-02	.9809-02	.9000	.1367-03	.1660-03	.9586-01	.6594	537.4
10	80000	.70000	376.00	.5298-02	.6434-02	.6434-02	.9000	.8967-04	.1089-03	.6293-01	.5025	536.8
10	80000	.90000	377.00	.5488-02	.6664-02	.6664-02	.9000	.9288-04	.1128-03	.6519-01	.5026	536.8
10	90000	.10000+00	378.00	.4012-01	.4881-01	.4881-01	.9000	.6790-03	.8261-03	.4723	3.396	543.0
10	.90000	.30000	379.00	.1670-01	.2029-01	.2029-01	.9000	.2825-03	.3433-03	.1978	1.448	538.8
10	.90000	.50000	380.00	.1684-02	.2043-02	.2043-02	.9000	.2849-04	.3458-04	.2004-01	.1402	535.3
10	.90000	.70000	381.00	.6447-02	.7828-02	.7828-02	.9000	.1091-03	.1325-03	.7662-01	.5563	536.5
10	90000	.90000	382.00	.5915-02	.7183-02	.7183-02	.9000	.1001-03	.1216-03	.7022-01	.5268	537.1
10	.95000	.30000	383.00	.1646-01	.2000-01	.2000-01	.9000	.2786-03	.3385-03	.1951	1.392	538.6
10	.95000	.50000	384.00	.1044-01	.1269-01	.1269-01	.9000	.1768-03	.2147-03	.1238	.8782	538.2
10	.95000	.90000	385.00	.6852-02	.8323-02	.8323-02	.9000	.1160-03	.1408-03	.8130-01	.5507	537.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT06)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
47	2.016	7.980	29 96	.2452-02	435.5	1297.	94.40	.4534-01	2.021	3801.	.1296-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
47	.3504-01	.2861-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
47	10000+00	.10000+00	340.00	.3175-01	.3829-01	.3829-01	.9000	.1112-02	.1342-02	.8438	5.986	538.1
47	10000+00	.30000	341 00	.1528-01	.1841-01	.1841-01	.9000	.5352-03	.6450-03	.4076	2.990	535.2
47	.10000+00	.50000	342.00	.1324-01	.1596-01	.1596-01	.9000	.4641-03	.5592-03	.3538	2.685	534.3
47	.20000	.10000+00	343.00	.2621-01	.3160-01	.3160-01	.9000	.9183-03	.1107-02	.6985	5 041	536.0
47	.20000	.20000	344.00	.1485-01	.1789-01	.1789-01	.9000	.5202-03	.6269-03	.3966	2.940	534.3
47	.20000	.40000	345.00	.8667-02	.1044-01	.1044-01	.9000	.3037-03	.3657-03	.2320	1.661	532.7
47	.20000	.60000	346.00	.7305-02	.8797-02	.8797-02	.9000	.2559-03	.3082-03	.1956	1.414	532.3
47	.20000	.80000	347 00	.2236-02	.2691-02	.2691-02	.9000	.7833-04	.9429-04	.6003-01	.4275	530.3
47	.30000	.50000-01	348 00	.2052-01	.2475-01	.2475-01	.9000	.7190-03	.8671-03	.5459	4 109	537.4
47	.30000	.20000	349.00	.7799-02	.9394-02	.9394-02	.9000	.2733-03	.3292-03	.2087	1.508	533.0
47	.30000	.40000	350 00	.5433-02	.6542-02	.6542-02	.9000	.1903-03	.2292-03	.1456	1 053	531.9
47	.30000	.50000	351.00	.5014-02	.6038-02	.6038-02	.9000	.1757-03	.2116-03	.1343	.9470	532.0
47	.30000	.90000	352 00	.1598-02	.1923-02	.1923-02	.9000	.5598-04	.6737-04	.4293-01	.3211	529 8
47	.40000	.10000+00	353 00	.1358-01	.1636-01	.1636-01	.9000	.4758-03	.5732-03	.3631	2 666	533 6
47	.40000	.20000	354 00	.9745-02	.1174-01	.1174-01	.9000	.3414-03	.4113-03	.2606	1.853	533 4
47	.40000	.50000	356 00	.6147-02	.7401-02	.7401-02	.9000	.2154-03	.2593-03	.1647	1.199	531 9
47	.40000	.90000	358.00	.2220-02	.2672-02	.2672-02	.9000	.7778-04	.9361-04	.5962-01	.4489	530 1
47	.50000	.50000-01	359.00	.2453-01	.2960-01	.2960-01	.9000	.8594-03	.1037-02	.6504	5.095	539 8
47	.50000	.70000	360 00	.5984-02	.7205-02	.7205-02	.9000	.2097-03	.2524-03	.1605	1.285	531 3
47	.50000	.90000	361 00	.4852-02	.5842-02	.5842-02	.9000	.1700-03	.2047-03	.1301	.9257	531 6
47	.60000	.50000-01	362 00	.2964-01	.3579-01	.3579-01	.9000	.1039-02	.1254-02	.7841	6.031	541 7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT06)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
47	.60000	.10000+00	363.00	2525-01	3045-01	.3045-01	.9000	.8847-03	.1067-02	.6714	5.087	537.7
47	.60000	.20000	364.00	.1721-01	.2074-01	.2074-01	.9000	.6029-03	.7268-03	.4586	3.386	535.9
47	.60000	.40000	365.00	.1417-01	.1707-01	.1707-01	.9000	.4964-03	.5980-03	.3789	2.669	533.4
47	.60000	.50000	366.00	.1216-01	.1464-01	.1464-01	.9000	.4260-03	.5131-03	.3255	2.315	532.7
47	.60000	.70000	367.00	.1078-01	.1298-01	.1298-01	.9000	.3777-03	.4549-03	.2885	2.309	532.8
47	.60000	.90000	368.00	.1124-01	.1353-01	.1353-01	.9000	.3938-03	.4741-03	.3012	2.251	531.7
47	.70000	.50000-01	369.00	.3498-01	.4227-01	.4227-01	.9000	.1226-02	.1481-02	.9217	7.465	544.6
47	.70000	.70000	370.00	.1063-01	.1280-01	.1280-01	.9000	.3724-03	.4486-03	.2844	2.317	532.9
47	.70000	.90000	371.00	.5810-02	.7000-02	.7000-02	.9000	.2036-03	.2453-03	.1553	1.199	533.8
47	.80000	.50000-01	372.00	.3236-02	.4437-02	.4437-02	.9000	.1134-03	.1555-03	.5430-01	3665	817.7
47	.80000	.10000+00	373.00	.3994-01	.4823-01	.4823-01	.9000	.1399-02	.1690-02	.1055	8.031	542.5
47	.80000	.40000	374.00	.2349-01	.2833-01	.2833-01	.9000	.8232-03	.9926-03	.6252	4.509	537.1
47	.80000	.50000	375.00	.1950-01	.2351-01	.2351-01	.9000	.6833-03	.8239-03	.5195	3.575	536.5
47	.80000	.70000	376.00	.1310-01	.1579-01	.1579-01	.9000	.4591-03	.5533-03	.3500	2.798	534.5
47	.80000	.90000	377.00	.1194-01	.1438-01	.1438-01	.9000	.4184-03	.5039-03	.3195	2.468	533.0
47	.90000	.10000+00	378.00	.4938-01	.5966-01	.5966-01	.9000	.1730-02	.2090-02	.1301	9.351	544.5
47	.90000	.30000	379.00	.2565-01	.3094-01	.3094-01	.9000	.8988-03	.1084-02	.6823	5.000	537.6
47	.90000	.50000	380.00	.3029-02	.3646-02	.3646-02	.9000	.1061-03	.1277-03	.8128-01	.5697	530.7
47	.90000	.70000	381.00	.1020-01	.1229-01	.1229-01	.9000	.3575-03	.4306-03	.2729	1.985	533.3
47	.90000	.90000	382.00	.1224-01	.1475-01	.1475-01	.9000	.4290-03	.5167-03	.3275	2.462	533.3
47	.95000	.30000	383.00	.2661-01	.3210-01	.3210-01	.9000	.9325-03	.1125-02	.7076	5.053	537.8
47	.95000	.50000	384.00	.2019-01	.2434-01	.2434-01	.9000	.7073-03	.8528-03	.5373	3.813	537.0
47	.95000	.90000	385.00	.1228-01	.1480-01	.1480-01	.9000	.4304-03	.5185-03	.3286	2.230	533.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT06)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
76	3.039	7.990	29 97	3283-06	671 6	1314.	95 41	.6936-01	3.099	3826.	.1962-02	.7678-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
76	4349-01	.2329-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
76	.10000+00	.10000+00	340.00	.2731-01	.3288-01	.3288-01	.9000	.1188-02	.1430-02	.9215	6.537	537.9
76	.10000+00	.30000	341.00	.1223-01	.1470-01	.1470-01	.9000	.5317-03	.6394-03	.4148	3.046	533.6
76	.10000+00	.50000	342.00	.1406-01	.1691-01	.1691-01	.9000	.6116-03	.7353-03	.4775	3.626	532.9
76	.20000	.10000+00	343 00	.2252-01	.2709-01	.2709-01	.9000	.9794-03	.1178-02	.7625	5.505	535.1
76	.20000	.20000	344.00	.1225-01	.1473-01	.1473-01	.9000	.5329-03	.6406-03	.4165	3.091	532.2
76	.20000	.40000	345 00	.1123-01	.1349-01	.1349-01	.9000	.4882-03	.5867-03	.3823	2.739	530.7
76	.20000	.60000	346 00	.7503-02	.9012-02	.9012-02	.9000	.3263-03	.3919-03	.2560	1.854	529.1
76	.20000	.80000	347 00	.3016-02	.3620-02	.3620-02	.9000	.1312-03	.1574-03	.1033	.7372	526.2
76	.30000	.50000-01	348 00	.1893-01	.2278-01	.2278-01	.9000	.8231-03	.9905-03	.6397	4.817	536.5
76	.30000	.20000	349 00	.8165-02	.9812-02	.9812-02	.9000	.3551-03	.4267-03	.2780	2.011	530.8
76	.30000	.40000	350.00	.8214-02	.9866-02	.9866-02	.9000	.3572-03	.4291-03	.2803	2.030	529.0
76	.30000	.50000	351 00	.7692-02	.9238-02	.9238-02	.9000	.3345-03	.4018-03	.2625	1.854	528.8
76	.30000	.90000	352 00	.2926-02	.3511-02	.3511-02	.9000	.1273-03	.1527-03	.1004	.7529	524.6
76	.40000	.10000+00	353 00	.1431-01	.1720-01	.1720-01	.9000	.6224-03	.7479-03	.4870	3.581	531.1
76	.40000	.20000	354 00	.9522-02	.1144-01	.1144-01	.9000	.4141-03	.4975-03	.3246	2.312	529.8
76	.40000	.50000	356 00	.6784-02	.8145-02	.8145-02	.9000	.2950-03	.3542-03	.2319	1.691	527.6
76	.40000	.90000	358 00	.3926-02	.4710-02	.4710-02	.9000	.1707-03	.2048-03	.1347	1.016	525.0
76	.50000	.50000-01	359 00	.3051-01	.3676-01	.3676-01	.9000	.1327-02	.1599-02	.1026	.8033	540.6
76	.50000	.70000	360 00	.5702-02	.6843-02	.6843-02	.9000	.2480-03	.2976-03	.1954	1.569	525.8
76	.50000	.90000	361 00	.5756-02	.6908-02	.6908-02	.9000	.2503-03	.3004-03	.1971	1.407	526.3
76	.60000	.50000-01	362 00	.4577-01	.5519-01	.5519-01	.9000	.1991-02	.2400-02	.1532	11.77	544.1

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2650

## OH84B 60-O VERTICAL TAIL

(R4UT06)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
76	.60000	.10000+00	363.00	.3646-01	.4388-01	.4388-01	.9000	.1586-02	.1908-02	1.232	9.335	536.9
76	.60000	.20000	364.00	.2254-01	.2710-01	.2710-01	.9000	.9802-03	.1179-02	.7647	5.653	533.5
76	.60000	.40000	365.00	.1719-01	.2064-01	.2064-01	.9000	.7474-03	.8978-03	.5862	4.137	529.4
76	.60000	.50000	366.00	.1491-01	.1790-01	.1790-01	.9000	.6483-03	.7786-03	.5086	3.625	529.0
76	.60000	.70000	367.00	.8878-02	.1066-01	.1066-01	.9000	.3861-03	.4635-03	.3038	2.438	526.9
76	.60000	.90000	368.00	.8768-02	.1052-01	.1052-01	.9000	.3813-03	.4576-03	.3006	2.253	525.4
76	.70000	.50000-01	369.00	.5270-01	.6362-01	.6362-01	.9000	.2292-02	.2767-02	1.753	14.17	548.8
76	.70000	.70000	370.00	.1094-01	.1313-01	.1313-01	.9000	.4757-03	.5712-03	.3738	3.053	527.9
76	.70000	.90000	371.00	.3490-02	.4194-02	.4194-02	.9000	.1518-03	.1824-03	.1187	9181	531.2
76	.80000	.10000+00	373.00	.4918-01	.5926-01	.5926-01	.9000	.2139-02	.2577-02	1.652	12.57	541.5
76	.80000	.40000	374.00	.2739-01	.3295-01	.3295-01	.9000	.1191-02	.1433-02	.9279	6.700	534.8
76	.80000	.50000	375.00	.2066-01	.2484-01	.2484-01	.9000	.8986-03	.1080-02	.7025	4.845	531.9
76	.80000	.70000	376.00	.1188-01	.1426-01	.1426-01	.9000	.5165-03	.6203-03	.4053	3.250	528.9
76	.80000	.90000	377.00	.1122-01	.1347-01	.1347-01	.9000	.4878-03	.5857-03	.3835	2.971	527.5
76	.90000	.10000+00	378.00	.5312-01	.6404-01	.6404-01	.9000	.2310-02	.2795-02	1.779	12.79	543.4
76	.90000	.30000	379.00	.2810-01	.3380-01	.3380-01	.9000	.1222-02	.1470-02	.9521	6.987	534.7
76	.90000	.50000	380.00	.4547-02	.5456-02	.5456-02	.9000	.1977-03	.2373-03	.1559	1.095	525.4
76	.90000	.70000	381.00	.1107-01	.1330-01	.1330-01	.9000	.4816-03	.5782-03	.3786	2.762	527.5
76	.90000	.90000	382.00	.1041-01	.1250-01	.1250-01	.9000	.4528-03	.5437-03	.3558	2.682	527.9
76	.95000	.30000	383.00	.2569-01	.3090-01	.3090-01	.9000	.1117-02	.1344-02	.8711	6.231	534.1
76	.95000	.50000	384.00	.2261-01	.2719-01	.2719-01	.9000	.9833-03	.1182-02	.7673	5.456	533.3
76	.95000	.90000	385.00	.1404-01	.1686-01	.1686-01	.9000	.6107-03	.7333-03	.4795	3.263	528.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2651

OH84B 60-0 VERTICAL TAIL

(R4UT06)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
119	3.691	8.000	29.96	.4900-02	862.0	1360	98.53	.8830-01	3.956	3893.	.2419-02	.7928-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
119	4943-01	.2105-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
119	.10000+00	.10000+00	340.00	.2819-01	.3383-01	.3383-01	.9000	.1393-02	.1672-02	1.136	8.031	544.5
119	.10000+00	.30000	341.00	.1796-01	.2154-01	.2154-01	.9000	.8876-03	.1065-02	.7256	5.305	542.2
119	.10000+00	.50000	342.00	.1521-01	.1824-01	.1824-01	.9000	.7518-03	.9015-03	.6156	4.657	540.8
119	.20000	.10000+00	343.00	.1960-01	.2351-01	.2351-01	.9000	.9687-03	.1162-02	.7913	5.690	542.8
119	.20000	.20000	344.00	.1145-01	.1372-01	.1372-01	.9000	.5658-03	.6783-03	.4638	3.429	539.9
119	.20000	.40000	345.00	.1181-01	.1415-01	.1415-01	.9000	.5837-03	.6996-03	.4790	3.418	539.0
119	.20000	.60000	346.00	.6405-02	.7674-02	.7674-02	.9000	.3166-03	.3793-03	.2603	1.877	537.3
119	.20000	.80000	347.00	.3479-02	.4165-02	.4165-02	.9000	.1719-03	.2059-03	.1418	1.008	534.7
119	.30000	.50000-01	348.00	.1895-01	.2275-01	.2275-01	.9000	.9366-03	.1124-02	.7626	5.717	545.4
119	.30000	.20000	349.00	.8767-02	.1051-01	.1051-01	.9000	.4333-03	.5193-03	.3557	2.563	538.8
119	.30000	.40000	350.00	.7264-02	.8704-02	.8704-02	.9000	.3590-03	.4302-03	.2951	2.128	537.6
119	.30000	.50000	351.00	.7005-02	.8393-02	.8393-02	.9000	.3463-03	.4148-03	.2847	2.002	537.3
119	.30000	.90000	352.00	.3012-02	.3606-02	.3606-02	.9000	.1489-03	.1782-03	.1227	.9157	535.1
119	.40000	.10000+00	353.00	.1599-01	.1917-01	.1917-01	.9000	.7901-03	.9474-03	.6472	4.736	540.5
119	.40000	.20000	354.00	.1113-01	.1334-01	.1334-01	.9000	.5501-03	.6595-03	.4509	3.196	539.9
119	.40000	.50000	356.00	.7260-02	.8698-02	.8698-02	.9000	.3588-03	.4299-03	.2950	2.141	537.6
119	.40000	.90000	358.00	.4104-02	.4915-02	.4915-02	.9000	.2029-03	.2429-03	.1672	1.255	535.4
119	.50000	.50000-01	359.00	.3563-01	.4286-01	.4286-01	.9000	.1761-02	.2119-02	.1419	1.103	554.1
119	.50000	.70000	360.00	.6024-02	.7217-02	.7217-02	.9000	.2977-03	.3567-03	.2447	1.954	537.6
119	.50000	.90000	361.00	.5936-02	.7111-02	.7111-02	.9000	.2934-03	.3515-03	.2413	1.713	537.1
119	.60000	.50000-01	362.00	.5118-01	.6166-01	.6166-01	.9000	.2529-02	.3048-02	.2022	15.41	560.3

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2652

## OH84B 60-O VERTICAL TAIL

(R4UT06)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
119	.60000	.10000+00	363.00	.3970-01	.4769-01	.4769-01	.9000	.1962-02	.2357-02	1.593	12.01	547.7
119	.60000	.20000	364.00	.2707-01	.3250-01	.3250-01	.9000	.1338-02	.1606-02	1.088	7.989	546.5
119	.60000	.40000	365.00	.2094-01	.2512-01	.2512-01	.9000	.1035-02	.1242-02	.8457	5.929	542.6
119	.60000	.50000	366.00	.1694-01	.2032-01	.2032-01	.9000	.8374-03	.1004-02	6855	4.855	541.1
119	.60000	.70000	367.00	.9056-02	.1085-01	.1085-01	.9000	.4476-03	.5364-03	3676	2.934	538.3
119	.60000	.90000	368.00	.8877-02	.1063-01	.1063-01	.9000	.4388-03	.5256-03	3611	2.691	536.8
119	.70000	.50000-01	369.00	.5250-01	.6330-01	.6330-01	.9000	.2595-02	.3129-02	2.068	16.59	562.9
119	.70000	.70000	370.00	.1064-01	.1275-01	.1275-01	.9000	.5259-03	.6304-03	.4313	3.502	539.5
119	.70000	.90000	371.00	.3260-02	.3904-02	.3904-02	.9000	.1611-03	.1930-03	1328	1.025	535.4
119	.80000	.10000+00	373.00	.4783-01	.5755-01	.5755-01	.9000	.2364-02	.2844-02	1.903	14.39	554.8
119	.80000	.40000	374.00	.2777-01	.3336-01	.3336-01	.9000	.1373-02	.1649-02	1.114	7.993	547.9
119	.80000	.50000	375.00	.2194-01	.2633-01	.2633-01	.9000	.1084-02	.1301-02	8836	6.055	544.8
119	.80000	.70000	376.00	.1275-01	.1529-01	.1529-01	.9000	.6303-03	.7558-03	5163	4.115	540.6
119	.80000	.90000	377.00	.1111-01	.1331-01	.1331-01	.9000	.5490-03	.6581-03	4505	3.469	539.2
119	.90000	.10000+00	378.00	.5439-01	.6551-01	.6551-01	.9000	.2688-02	.3238-02	2.154	15.37	558.4
119	.90000	.30000	379.00	.2535-01	.3165-01	.3165-01	.9000	.1302-02	.1564-02	1.058	7.716	547.3
119	.90000	.50000	380.00	.4657-02	.5577-02	.5577-02	.9000	.2302-03	.2757-03	.1896	1.325	536.0
119	.90000	.70000	381.00	.1133-01	.1358-01	.1358-01	.9000	.5598-03	.6710-03	.4594	3.331	539.0
119	.90000	.90000	382.00	.1162-01	.1392-01	.1392-01	.9000	.5741-03	.6882-03	.4709	3.529	539.5
119	.95000	.30000	383.00	.2453-01	.2945-01	.2945-01	.9000	.1212-02	.1456-02	.9861	7.011	546.3
119	.95000	.50000	384.00	.2120-01	.2545-01	.2545-01	.9000	.1048-02	.1258-02	.8532	6.030	545.5
119	.95000	.90000	385.00	.1369-01	.1641-01	.1641-01	.9000	.6767-03	.8113-03	.5546	3.752	540.1



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2653

OH84B 60-0 VERTICAL TAIL

(R4UT08)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = 1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
50	2 048	7.980	29.94	1.035	434.8	1282.	93.31	.4526-01	2.018	3779.	.1309-02	.7508-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
50	.3494-01	2843-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
50	.10000+00	10000+00	340.00	.2435-01	.2938-01	.2938-01	.9000	.8509-03	.1027-02	.6375	4.535	532.5
50	.10000+00	.30000	341.00	.8597-02	.1036-01	.1036-01	.9000	.3004-03	.3621-03	.2259	1.663	529.5
50	.10000+00	.50000	342.00	.1071-01	.1291-01	.1291-01	.9000	.3743-03	.4511-03	.2817	2.144	529.1
50	.20000	10000+00	343.00	.2030-01	.2448-01	.2448-01	.9000	.7093-03	.8551-03	.5329	3.857	530.3
50	20000	20000	344.00	.9207-02	.1109-01	.1109-01	.9000	.3217-03	.3876-03	.2424	1.803	528.1
50	20000	.40000	345.00	.5175-02	.6233-02	.6233-02	.9000	.1808-03	.2178-03	.1364	.9796	527.0
50	.20000	.60000	346.00	.4398-02	.5295-02	.5295-02	.9000	.1537-03	.1850-03	.1162	.8427	525.6
50	20000	80000	347.00	.2329-02	.2803-02	.2803-02	.9000	.8136-04	.9792-04	.6167-01	.4407	523.7
50	.30000	.50000-01	348.00	.1636-01	.1973-01	.1973-01	.9000	.5717-03	.6893-03	.4293	3.242	530.7
50	30000	.20000	349.00	.6094-02	.7340-02	.7340-02	.9000	.2129-03	.2565-03	.1608	1.166	526.6
50	30000	.40000	350.00	.4141-02	.4987-02	.4987-02	.9000	.1447-03	.1742-03	.1094	.7932	525.9
50	.30000	.50000	351.00	.3392-02	.4084-02	.4084-02	.9000	.1185-03	.1427-03	.8965-01	.6342	525.1
50	.30000	.90000	352.00	.1818-02	.2188-02	.2188-02	.9000	.6353-04	.7646-04	.4818-01	.3616	523.3
50	.40000	.10000+00	353.00	.1019-01	.1227-01	.1227-01	.9000	.3559-03	.4286-03	.2688	1.981	526.3
50	.40000	.20000	354.00	.7347-02	.8849-02	.8849-02	.9000	.2567-03	.3092-03	.1939	1.384	526.3
50	.40000	.50000	356.00	.4172-02	.5024-02	.5024-02	.9000	.1458-03	.1755-03	.1102	.8047	525.6
50	40000	.90000	358.00	.2097-02	.2523-02	.2523-02	.9000	.7325-04	.8816-04	.5553-01	.4194	523.6
50	.50000	.50000-01	359.00	.2080-01	.2508-01	.2508-01	.9000	.7266-03	.8764-03	.5448	4.285	531.9
50	.50000	.70000	360.00	.3148-02	.3789-02	.3789-02	.9000	.1100-03	.1324-03	.8329-01	.6693	524.3
50	.50000	.90000	361.00	.3022-02	.3638-02	.3638-02	.9000	.1056-03	.1271-03	.7997-01	.5713	524.3
50	.60000	.50000-01	362.00	.2737-01	.3304-01	.3304-01	.9000	.9564-03	.1154-02	.7149	5.520	534.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2654

## OH84B 60-0 VERTICAL TAIL

(R4UT08)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
50	.60000	.10000+00	363.00	.2191-01	.2642-01	.2642-01	.9000	.7656-03	.9231-03	.5751	4.373	530.5
50	.60000	.20000	364.00	.1336-01	.1610-01	.1610-01	.9000	.4668-03	.5626-03	.3516	2.606	528.5
50	.60000	.40000	365.00	.1542-01	.1858-01	.1858-01	.9000	.5388-03	.6491-03	.4065	2.872	527.3
50	.60000	.50000	366.00	.1625-01	.1958-01	.1958-01	.9000	.5678-03	.6841-03	.4283	3.055	527.4
50	.60000	.70000	367.00	.1112-01	.1339-01	.1339-01	.9000	.3885-03	.4679-03	.2935	2.356	526.4
50	.60000	.90000	368.00	.8944-02	.1077-01	.1077-01	.9000	.3125-03	.3762-03	.2365	1.774	524.8
50	.70000	.50000-01	369.00	.3506-01	.4235-01	.4235-01	.9000	.1225-02	.1480-02	.9119	7.413	537.3
50	.70000	.70000	370.00	.1300-01	.1566-01	.1566-01	.9000	.4541-03	.5470-03	.3429	2.802	526.7
50	.70000	.90000	371.00	.5753-02	.6935-02	.6935-02	.9000	.2010-03	.2423-03	.1511	1.169	529.8
50	.80000	.10000+00	373.00	.3655-01	.4411-01	.4411-01	.9000	.1277-02	.1541-02	.9550	7.299	533.8
50	.80000	.40000	374.00	.1919-01	.2313-01	.2313-01	.9000	.6705-03	.8082-03	.5043	3.651	529.5
50	.80000	.50000	375.00	.1502-01	.1809-01	.1809-01	.9000	.5247-03	.6321-03	.3955	2.734	527.8
50	.80000	.70000	376.00	.1088-01	.1311-01	.1311-01	.9000	.3803-03	.4580-03	.2873	2.307	526.1
50	.80000	.90000	377.00	.1128-01	.1359-01	.1359-01	.9000	.3943-03	.4747-03	.2983	2.313	525.2
50	.90000	.10000+00	378.00	.5163-01	.6236-01	.6236-01	.9000	.1804-02	.2179-02	1.344	9.698	536.5
50	.90000	.30000	379.00	.2261-01	.2726-01	.2726-01	.9000	.7901-03	.9523-03	.5946	4.376	529.1
50	.90000	.50000	380.00	.1312-02	.1579-02	.1579-02	.9000	.4585-04	.5517-04	.3476-01	2445	523.6
50	.90000	.70000	381.00	.1031-01	.1242-01	.1242-01	.9000	.3604-03	.4339-03	.2726	1.990	525.3
50	.90000	.90000	382.00	.1036-01	.1247-01	.1247-01	.9000	.3620-03	.4358-03	.2739	2.067	525.0
50	.95000	.30000	383.00	.2382-01	.2871-01	.2871-01	.9000	.8322-03	.1003-02	.6259	4.488	529.6
50	.95000	.50000	384.00	.2007-01	.2419-01	.2419-01	.9000	.7012-03	.8451-03	.5278	3.762	528.9
50	.95000	.90000	385.00	.1492-01	.1797-01	.1797-01	.9000	.5213-03	.6277-03	.3942	2.687	525.4

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2655

## OH84B 60-O VERTICAL TAIL

(R4UT09)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = 2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
53	1.993	7.980	29 95	2 037	434.6	1305	94 98	.4524-01	2.017	3813.	.1286-02	.7643-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
53	.3504-01	.2875-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
53	.10000+00	.10000+00	340.00	.1939-01	.2332-01	.2332-01	.9000	.6794-03	.8172-03	.5258	3.744	530.8
53	.10000+00	.30000	341.00	.3869-02	.4650-02	.4650-02	.9000	.1356-03	.1629-03	.1054	.7761	527.4
53	.10000+00	.50000	342.00	.8102-02	.9737-02	.9737-02	.9000	.2839-03	.3412-03	.2205	1.679	528.0
53	.20000	.10000+00	343.00	.1477-01	.1775-01	.1775-01	.9000	.5175-03	.6220-03	.4018	2.911	528.2
53	.20000	.20000	344 00	.6173-02	.7416-02	.7416-02	.9000	.2163-03	.2598-03	.1684	1.254	526.0
53	.20000	.40000	345.00	.3224-02	.3872-02	.3872-02	.9000	.1130-03	.1357-03	.8805-01	.6328	525.1
53	.20000	.60000	346 00	.2911-02	.3495-02	.3495-02	.9000	.1020-03	.1225-03	.7963-01	.5781	523.9
53	.20000	.80000	347.00	.3537-02	.4246-02	.4246-02	.9000	.1239-03	.1488-03	.9687-01	.6925	523.1
53	.30000	.50000-01	348 00	.1313-01	.1578-01	.1578-01	.9000	.4599-03	.5528-03	.3572	2.702	527.9
53	.30000	.20000	349 00	.4729-02	.5680-02	.5680-02	.9000	.1657-03	.1990-03	.1292	.9374	525 1
53	.30000	.40000	350.00	.3419-02	.4105-02	.4105-02	.9000	.1198-03	.1438-03	.9346-01	.6783	524.5
53	.30000	.50000	351 00	.2939-02	.3529-02	.3529-02	.9000	.1030-03	.1236-03	.8040-01	.5691	524.0
53	.30000	.90000	352 00	.3170-02	.3805-02	.3805-02	.9000	.1111-03	.1333-03	.8685-01	.6520	522.7
53	.40000	.10000+00	353 00	.9230-02	.1109-01	.1109-01	.9000	.3234-03	.3884-03	.2522	1 860	525 0
53	.40000	.20000	354 00	.6949-02	.8344-02	.8344-02	.9000	.2435-03	.2924-03	.1899	1 356	524 7
53	.40000	.50000	356 00	.3818-02	.4585-02	.4585-02	.9000	.1338-03	.1606-03	.1044	.7630	524 2
53	.40000	.90000	358 00	.2508-02	.3010-02	.3010-02	.9000	.8787-04	.1055-03	.6872-01	.5194	522 5
53	.50000	.50000-01	359 00	.2215-01	.2663-01	.2663-01	.9000	.7761-03	.9332-03	.6014	4 735	529 8
53	.50000	.70000	360 00	.1920-02	.2304-02	.2304-02	.9000	.6727-04	.8074-04	.5263-01	.4234	522 3
53	.50000	.90000	361 00	.2253-02	.2705-02	.2705-02	.9000	.7896-04	.9478-04	.6172-01	.4412	523.0
53	.60000	.50000-01	362 00	.2993-01	.3602-01	.3602-01	.9000	.1049-02	.1262-02	.8097	6.256	532 6

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2656

## OH84B 60-O VERTICAL TAIL

(R4UT09)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
53	.60000	.10000+00	363.00	.2276-01	.2736-01	.2736-01	.9000	.7974-03	.9586-03	.6184	4.706	529.1
53	.60000	.20000	364.00	.1551-01	.1863-01	.1863-01	.9000	.5433-03	.6530-03	.4221	3.129	527.7
53	.60000	.40000	365.00	.1524-01	.1831-01	.1831-01	.9000	.5341-03	.6416-03	.4159	2.940	526.0
53	.60000	.50000	366.00	.1358-01	.1631-01	.1631-01	.9000	.4759-03	.5716-03	.3708	2.647	525.5
53	.60000	.70000	367.00	.6044-02	.7256-02	.7256-02	.9000	.2118-03	.2542-03	.1653	1.329	523.9
53	.60000	.90000	368.00	.5106-02	.6127-02	.6127-02	.9000	.1789-03	.2147-03	.1400	1.051	522.1
53	.70000	.50000-01	369.00	.3828-01	.4609-01	.4609-01	.9000	.1341-02	.1615-02	1.032	8.394	535.4
53	.70000	.70000	370.00	.1167-01	.1402-01	.1402-01	.9000	.4089-03	.4911-03	.3187	2.607	525.1
53	.70000	.90000	371.00	.3681-02	.4426-02	.4426-02	.9000	.1290-03	.1551-03	.9995-01	.7734	529.7
53	.80000	.10000+00	373.00	.3918-01	.4714-01	.4714-01	.9000	.1373-02	.1652-02	1.060	8.108	532.4
53	.80000	.40000	374.00	.2427-01	.2918-01	.2918-01	.9000	.8504-03	.1022-02	.6596	4.776	529.0
53	.80000	.50000	375.00	.2063-01	.2479-01	.2479-01	.9000	.7228-03	.8688-03	.5613	3.879	528.1
53	.80000	.70000	376.00	.1373-01	.1649-01	.1649-01	.9000	.4810-03	.5778-03	.3747	3.009	525.8
53	.80000	.90000	377.00	.1227-01	.1473-01	.1473-01	.9000	.4299-03	.5162-03	.3355	2.603	524.2
53	.90000	.10000+00	378.00	.5165-01	.6221-01	.6221-01	.9000	.1810-02	.2180-02	1.391	10.04	536.0
53	.90000	.30000	379.00	.2390-01	.2873-01	.2873-01	.9000	.8375-03	.1007-02	.6501	4.786	528.4
53	.90000	.50000	380.00	.1422-02	.1706-02	.1706-02	.9000	.4981-04	.5979-04	.3897-01	.2743	522.4
53	.90000	.70000	381.00	.1171-01	.1406-01	.1406-01	.9000	.4102-03	.4925-03	.3202	2.340	524.1
53	.90000	.90000	382.00	.1339-01	.1608-01	.1608-01	.9000	.4691-03	.5633-03	.3660	2.764	524.4
53	.95000	.30000	383.00	.2403-01	.2888-01	.2888-01	.9000	.8418-03	.1012-02	.6534	4.687	528.5
53	.95000	.50000	384.00	.2079-01	.2499-01	.2499-01	.9000	.7286-03	.8757-03	.5658	4.034	528.1
53	.95000	.90000	385.00	.1543-01	.1852-01	.1852-01	.9000	.5405-03	.6491-03	.4216	2.874	524.7

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2657

OH84B 60-O VERTICAL TAIL

(R4UT10)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = 2.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
54	1.990	7.980	29.95	2 038	434 8	1307	95.13	.4526-01	2.018	3815.	.1284-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
54	.3506-01	2877-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
54	.10000+00	.10000+00	340.00	.1951-01	.2345-01	.2345-01	.9000	.6838-03	.8220-03	.5317	3.789	529.2
54	.10000+00	.30000	341.00	.3952-02	.4746-02	.4746-02	.9000	.1385-03	.1664-03	.1082	.7973	526.0
54	.10000+00	.50000	342.00	.8174-02	.9819-02	.9819-02	.9000	.2866-03	.3442-03	.2236	1.703	526.5
54	.20000	.10000+00	343.00	.1502-01	.1804-01	.1804-01	.9000	.5266-03	.6306-03	.4108	2.979	526.6
54	.20000	.20000	344.00	.6165-02	.7401-02	.7401-02	.9000	.2161-03	.2595-03	.1691	1.260	524.4
54	.20000	.40000	345.00	.3037-02	.3645-02	.3645-02	.9000	.1065-03	.1278-03	.8337-01	.5996	523.6
54	.20000	.60000	346.00	.3009-02	.3610-02	.3610-02	.9000	.1055-03	.1266-03	.8272-01	.6011	522.4
54	.20000	.80000	347.00	.3596-02	.4314-02	.4314-02	.9000	.1261-03	.1512-03	.9898-01	.7081	521.5
54	.30000	.50000-01	348.00	.1326-01	.1593-01	.1593-01	.9000	.4650-03	.5585-03	.3629	2.747	526.2
54	.30000	.20000	349.00	.4579-02	.5496-02	.5496-02	.9000	.1605-03	.1927-03	.1257	.9132	523.4
54	.30000	.40000	350.00	.3480-02	.4176-02	.4176-02	.9000	.1220-03	.1464-03	.9562-01	.6946	522.8
54	.30000	.50000	351.00	.3103-02	.3723-02	.3723-02	.9000	.1088-03	.1305-03	.8533-01	.6044	522.3
54	.30000	.90000	352.00	.3117-02	.3739-02	.3739-02	.9000	.1093-03	.1311-03	.8588-01	.6453	520.9
54	.40000	.10000+00	353.00	.9370-02	.1125-01	.1125-01	.9000	.3285-03	.3942-03	.2573	1.900	523.3
54	.40000	.20000	354.00	.7017-02	.8421-02	.8421-02	.9000	.2460-03	.2952-03	.1928	1.378	523.0
54	.40000	.50000	355.00	.4004-02	.4804-02	.4804-02	.9000	.1404-03	.1684-03	.1101	.8051	522.3
54	.40000	.90000	358.00	.2310-02	.2771-02	.2771-02	.9000	.8099-04	.9713-04	.6366-01	.4817	520.6
54	.50000	.50000-01	359.00	.2232-01	.2683-01	.2683-01	.9000	.7826-03	.9404-03	.6093	4.801	528.1
54	.50000	.70000	360.00	.1815-02	.2177-02	.2177-02	.9000	.6364-04	.7632-04	.5004-01	.4030	520.4
54	.50000	.90000	361.00	.2914-02	.3495-02	.3495-02	.9000	.1022-03	.1225-03	.8027-01	.5744	521.0
54	.60000	.50000-01	362.00	.2997-01	.3604-01	.3604-01	.9000	.1051-02	.1264-02	.8151	6.304	530.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2658

## OH84B 60-0 VERTICAL TAIL

(R4UT10)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
54	.60000	.10000+00	363.00	.2271-01	.2728-01	.2728-01	.9000	.7961-03	.9564-03	.6206	4.727	527.1
54	.60000	.20000	364.00	.1541-01	.1850-01	.1850-01	.9000	.5401-03	.6486-03	.4218	3.130	525.7
54	.60000	.40000	365.00	.1539-01	.1847-01	.1847-01	.9000	.5394-03	.6475-03	.4222	2.988	524.0
54	.60000	.50000	366.00	.1359-01	.1631-01	.1631-01	.9000	.4764-03	.5718-03	.3731	2.666	523.6
54	.60000	.70000	367.00	.6344-02	.7611-02	.7611-02	.9000	.2224-03	.2668-03	.1745	1.404	521.9
54	.60000	.90000	368.00	.4983-02	.5976-02	.5976-02	.9000	.1747-03	.2095-03	.1374	1.033	520.0
54	.70000	.50000-01	369.00	.3861-01	.4646-01	.4646-01	.9000	.1354-02	.1629-02	1.046	8.522	533.6
54	.70000	.70000	370.00	.1173-01	.1407-01	.1407-01	.9000	.4111-03	.4934-03	.3222	2.638	523.1
54	.70000	.90000	371.00	.4451-02	.5349-02	.5349-02	.9000	.1560-03	.1875-03	1214	.9402	528.5
54	.80000	.50000-01	372.00	.1461-03	.1786-03	.1786-03	.9000	.5123-05	.6260-05	.3685-02	.2771-01	587.3
54	.80000	.10000+00	373.00	.3933-01	.4729-01	.4729-01	.9000	.1379-02	.1658-02	1.070	8.194	530.4
54	.80000	.40000	374.00	.2439-01	.2930-01	.2930-01	.9000	.8549-03	.1027-02	6666	4.832	526.9
54	.80000	.50000	375.00	.2054-01	.2467-01	.2467-01	.9000	.7200-03	.8648-03	.5620	3.888	526.1
54	.80000	.70000	376.00	.1357-01	.1629-01	.1629-01	.9000	.4758-03	.5711-03	.3725	2.994	523.8
54	.80000	.90000	377.00	.1229-01	.1475-01	.1475-01	.9000	.4308-03	.5169-03	.3379	2.625	522.3
54	.90000	.10000+00	378.00	.5159-01	.6209-01	.6209-01	.9000	.1808-02	.2177-02	1.397	10.09	534.1
54	.90000	.30000	379.00	.2392-01	.2874-01	.2874-01	.9000	.8387-03	.1007-02	.6543	4.822	526.5
54	.90000	.50000	380.00	.1364-02	.1636-02	.1636-02	.9000	.4783-04	.5737-04	.3760-01	.2649	520.5
54	.90000	.70000	381.00	.1170-01	.1404-01	.1404-01	.9000	.4103-03	.4923-03	.3219	2.355	522.1
54	.90000	.90000	382.00	.1317-01	.1581-01	.1581-01	.9000	.4618-03	.5541-03	.3622	2.737	522.5
54	.95000	.30000	383.00	.2382-01	.2861-01	.2861-01	.9000	.8351-03	.1003-02	.6514	4.678	526.6
54	.95000	.50000	384.00	.2068-01	.2484-01	.2484-01	.9000	.7249-03	.8707-03	.5658	4.038	526.2
54	.95000	.90000	385.00	.1571-01	.1885-01	.1885-01	.9000	.5506-03	.6607-03	.4316	2.946	522.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2659

OH84B 60-0 VERTICAL TAIL

(R4UT11)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
164	2.005	7.980	34.98	-4.049	435.7	1302.	94.76	.4536-01	2.022	3808.	.1292-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
164	.3507-01	.2967-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
164	.10000+00	.10000+00	340.00	.2327-01	.2803-01	.2803-01	.9000	.8160-03	.9831-03	.6246	4.435	536.2
164	.10000+00	.30000	341.00	.1191-01	.1435-01	.1435-01	.9000	.4177-03	.5032-03	.3199	2.347	535.7
164	.10000+00	.50000	342.00	.9476-02	.1141-01	.1141-01	.9000	.3323-03	.4000-03	.2558	1.943	532.1
164	.20000	.10000+00	343.00	.2250-01	.2710-01	.2710-01	.9000	.7890-03	.9503-03	.6053	4.371	534.5
164	.20000	.20000	344.00	.9101-02	.1096-01	.1096-01	.9000	.3192-03	.3844-03	.2449	1.816	534.3
164	.20000	.40000	345.00	.8612-02	.1037-01	.1037-01	.9000	.3020-03	.3636-03	.2321	1.661	533.1
164	.20000	.60000	346.00	.8624-02	.1037-01	.1037-01	.9000	.3025-03	.3638-03	.2333	1.689	530.2
164	.20000	.80000	347.00	.2610-02	.3136-02	.3136-02	.9000	.9153-04	.1100-03	.7098-01	.5066	526.2
164	.30000	.50000-01	348.00	.1614-01	.1945-01	.1945-01	.9000	.5659-03	.6821-03	.4327	3.257	537.1
164	.30000	.20000	349.00	.9017-02	.1086-01	.1086-01	.9000	.3162-03	.3809-03	.2426	1.752	534.5
164	.30000	.40000	350.00	.8798-02	.1059-01	.1059-01	.9000	.3086-03	.3714-03	.2374	1.716	532.4
164	.30000	.50000	351.00	.1190-01	.1432-01	.1432-01	.9000	.4173-03	.5023-03	.3211	2.263	532.2
164	.30000	.90000	352.00	.6248-02	.7512-02	.7512-02	.9000	.2191-03	.2634-03	.1696	1.270	527.8
164	.40000	.10000+00	353.00	.2268-01	.2733-01	.2733-01	.9000	.7954-03	.9583-03	.6090	4.466	536.0
164	.40000	.20000	354.00	.2061-01	.2484-01	.2484-01	.9000	.7229-03	.8713-03	.5526	3.922	537.2
164	.40000	.50000	356.00	.1580-01	.1902-01	.1902-01	.9000	.5541-03	.6671-03	.4258	3.096	533.3
164	.40000	.90000	358.00	.1196-01	.1439-01	.1439-01	.9000	.4195-03	.5046-03	.3236	2.437	530.2
164	.50000	.50000-01	359.00	.4148-01	.5012-01	.5012-01	.9000	.1455-02	.1758-02	.1.099	8.577	546.6
164	.50000	.70000	360.00	.1209-01	.1456-01	.1456-01	.9000	.4242-03	.5105-03	.3266	2.614	531.8
164	.50000	.90000	361.00	.1256-01	.1511-01	.1511-01	.9000	.4405-03	.5300-03	.3396	2.418	530.7
164	.60000	.50000-01	362.00	.4548-01	.5496-01	.5496-01	.9000	.1595-02	.1927-02	.1.204	9.236	546.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2660

## OH84B 60-0 VERTICAL TAIL

(R4UT11)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
164	.60000	.10000+00	363.00	.4361-01	.5264-01	.5264-01	.9000	.1529-02	.1846-02	1.160	8.760	543.4
164	.60000	.20000	364.00	.4353-01	.5254-01	.5254-01	.9000	.1527-02	.1843-02	1.159	8.525	542.6
164	.60000	.40000	365.00	.4630-01	.5584-01	.5584-01	.9000	.1624-02	.1958-02	1.237	8.681	540.0
164	.60000	.50000	366.00	.3682-01	.4440-01	.4440-01	.9000	.1291-02	.1557-02	.9852	6.987	538.7
164	.60000	.70000	367.00	.1447-01	.1741-01	.1741-01	.9000	.5074-03	.6107-03	.3904	3.124	532.3
164	.60000	.90000	368.00	.1345-01	.1618-01	.1618-01	.9000	.4718-03	.5675-03	.3642	2.724	529.7
164	.70000	.50000-01	369.00	.3762-01	.4543-01	.4543-01	.9000	.1319-02	.1593-02	.9981	8.082	545.1
164	.70000	.70000	370.00	.1514-01	.1823-01	.1823-01	.9000	.5310-03	.6392-03	.4084	3.328	532.6
164	.70000	.90000	371.00	.4063-02	.4891-02	.4891-02	.9000	.1425-03	.1715-03	.1096	.8467	532.6
164	.80000	.50000-01	372.00	.3677-02	.4860-02	.4860-02	.9000	.1290-03	.1705-03	.6898-01	.4763	766.8
164	.80000	.10000+00	373.00	.3466-01	.4183-01	.4183-01	.9000	.1216-02	.1467-02	.9242	7.036	541.5
164	.80000	.40000	374.00	.3572-01	.4309-01	.4309-01	.9000	.1253-02	.1511-02	.9536	6.866	540.5
164	.80000	.50000	375.00	.2776-01	.3345-01	.3345-01	.9000	.9735-03	.1173-02	.7442	5.119	537.2
164	.80000	.70000	376.00	.1693-01	.2039-01	.2039-01	.9000	.5938-03	.7150-03	.4562	3.649	533.4
164	.80000	.90000	377.00	.1448-01	.1742-01	.1742-01	.9000	.5079-03	.6111-03	.3914	3.027	530.9
164	.90000	.10000+00	378.00	.3970-01	.4793-01	.4793-01	.9000	.1392-02	.1681-02	1.056	7.594	543.1
164	.90000	.30000	379.00	.2799-01	.3374-01	.3374-01	.9000	.9816-03	.1183-02	.7502	5.498	537.4
164	.90000	.50000	380.00	.1414-01	.1702-01	.1702-01	.9000	.4960-03	.5969-03	.3820	2.676	531.5
164	.90000	.70000	381.00	.1544-01	.1858-01	.1858-01	.9000	.5414-03	.6514-03	.4173	3.039	530.9
164	.90000	.90000	382.00	.1367-01	.1646-01	.1646-01	.9000	.4795-03	.5771-03	.3691	2.777	531.9
164	.95000	.30000	383.00	.2319-01	.2793-01	.2793-01	.9000	.8131-03	.9797-03	.6226	4.450	536.0
164	.95000	.50000	384.00	.2376-01	.2864-01	.2864-01	.9000	.8334-03	.1004-02	.6377	4.527	536.5
164	.95000	.90000	385.00	.1662-01	.2000-01	.2000-01	.9000	.5629-03	.7014-03	.4491	3.052	531.2



DATE 23 FEB 60

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2661

OH84B 60-O VERTICAL TAIL

(R4UT11)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
107	3 001	7.990	34.98	-4.050	670.2	1323	96.07	.6921-01	3.093	3839.	.1944-02	.7731-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
107	4350-01	.2341-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
107	.10000+00	.10000+00	340.00	.2759-01	.3316-01	.3316-01	.9000	.1200-02	.1442-02	.9436	6.701	536.2
107	.10000+00	.30000	341.00	.1453-01	.1722-01	.1722-01	.9000	.6233-03	.7490-03	.4913	3.606	534.5
107	.10000+00	.50000	342.00	.1052-01	.1263-01	.1263-01	.9000	.4575-03	.5492-03	.3626	2.758	530.1
107	.20000	.10000+00	343.00	.1718-01	.2063-01	.2063-01	.9000	.7472-03	.8972-03	.5913	4.277	531.3
107	.20000	.20000	344.00	.9509-02	.1142-01	.1142-01	.9000	.4136-03	.4966-03	.3273	2.430	531.3
107	.20000	.40000	345.00	.1395-01	.1675-01	.1675-01	.9000	.6068-03	.7286-03	.4798	3.436	532.0
107	.20000	.60000	346.00	.1260-01	.1512-01	.1512-01	.9000	.5481-03	.6577-03	.4350	3.150	529.1
107	.20000	.80000	347.00	.3674-02	.4404-02	.4404-02	.9000	.1598-03	.1915-03	.1275	.9109	524.6
107	.30000	.50000-01	348.00	.1968-01	.2366-01	.2366-01	.9000	.8559-03	.1029-02	.6734	5.072	536.0
107	.30000	.20000	349.00	.1090-01	.1309-01	.1309-01	.9000	.4740-03	.5692-03	.3749	2.711	531.7
107	.30000	.40000	350.00	.1497-01	.1798-01	.1798-01	.9000	.6511-03	.7818-03	.5152	3.726	531.5
107	.30000	.50000	351.00	.2158-01	.2592-01	.2592-01	.9000	.9386-03	.1127-02	.7414	5.224	532.8
107	.30000	.90000	352.00	.8058-02	.9661-02	.9661-02	.9000	.3505-03	.4202-03	.2794	2.094	525.6
107	.40000	.10000+00	353.00	.3427-01	.4121-01	.4121-01	.9000	.1491-02	.1792-02	.1172	8.595	536.4
107	.40000	.20000	354.00	.2890-01	.3475-01	.3475-01	.9000	.1257-02	.1511-02	.9876	7.010	537.0
107	.40000	.50000	356.00	.2241-01	.2691-01	.2691-01	.9000	.9746-03	.1171-02	.7700	5.602	532.6
107	.40000	.90000	358.00	.1199-01	.1438-01	.1438-01	.9000	.5213-03	.6254-03	.4143	3.123	527.9
107	.50000	.50000-01	359.00	.5664-01	.6834-01	.6834-01	.9000	.2463-02	.2972-02	.1.904	14.84	550.0
107	.50000	.70000	360.00	.1292-01	.1550-01	.1550-01	.9000	.5619-03	.6744-03	.4455	3.571	529.7
107	.50000	.90000	361.00	.1146-01	.1374-01	.1374-01	.9000	.4983-03	.5978-03	.3960	2.824	527.9
107	.60000	.50000-01	362.00	.5519-01	.6655-01	.6655-01	.9000	.2401-02	.2895-02	.1.859	14.26	548.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2662

## OH84B 60-0 VERTICAL TAIL

(R4UT11)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
107	.60000	.10000+00	363.00	.5529-01	.6660-01	.6660-01	.9000	.2405-02	.2897-02	1.872	14.14	514.0
107	.60000	.20000	364.00	.4932-01	.5939-01	.5939-01	.9000	.2145-02	.2583-02	1.672	12.30	543.1
107	.60000	.40000	365.00	.3991-01	.4799-01	.4799-01	.9000	.1736-02	.2087-02	1.364	9.591	536.8
107	.60000	.50000	366.00	.3176-01	.3818-01	.3818-01	.9000	.1381-02	.1661-02	1.087	7.721	535.8
107	.60000	.70000	367.00	.1325-01	.1590-01	.1590-01	.9000	.5762-03	.6915-03	.4570	3.663	529.5
107	.60000	.90000	368.00	.1214-01	.1456-01	.1456-01	.9000	.5281-03	.6333-03	.4203	3.149	526.8
107	.70000	.50000-01	369.00	.4501-01	.5424-01	.5424-01	.9000	.1958-02	.2359-02	1.521	12.31	545.8
107	.70000	.70000	370.00	.1366-01	.1640-01	.1640-01	.9000	.5941-03	.7131-03	.4711	3.844	529.8
107	.70000	.90000	371.00	.3819-02	.4585-02	.4585-02	.9000	.1661-03	.1994-03	.1314	1.016	531.4
107	.80000	.50000-01	372.00	.2549-02	.3137-02	.3137-02	.9000	.1109-03	.1365-03	.7821-01	.5794	617.2
107	.80000	.10000+00	373.00	.4172-01	.5021-01	.5021-01	.9000	.1815-02	.2184-02	1.419	10.81	540.7
107	.80000	.40000	374.00	.3581-01	.4308-01	.4308-01	.9000	.1558-02	.1874-02	1.222	8.809	538.1
107	.80000	.50000	375.00	.2812-01	.3380-01	.3380-01	.9000	.1223-02	.1470-02	.9630	6.630	535.4
107	.80000	.70000	376.00	.1620-01	.1945-01	.1945-01	.9000	.7048-03	.8460-03	.5584	4.474	530.4
107	.80000	.90000	377.00	.1366-01	.1639-01	.1639-01	.9000	.5942-03	.7129-03	.4720	3.655	528.3
107	.90000	.10000+00	378.00	.4700-01	.5658-01	.5658-01	.9000	.2044-02	.2461-02	1.597	11.49	541.4
107	.90000	.30000	379.00	.3311-01	.3980-01	.3980-01	.9000	.1440-02	.1731-02	1.133	8.306	536.2
107	.90000	.50000	380.00	.1682-01	.2019-01	.2019-01	.9000	.7317-03	.8783-03	.5798	4.064	530.3
107	.90000	.70000	381.00	.1482-01	.1778-01	.1778-01	.9000	.6446-03	.7734-03	.5121	3.733	528.4
107	.90000	.90000	382.00	.1516-01	.1819-01	.1819-01	.9000	.6593-03	.7913-03	.5230	3.939	529.4
107	.95000	.30000	383.00	.2906-01	.3493-01	.3493-01	.9000	.1264-02	.1519-02	.9951	7.114	535.4
107	.95000	.50000	384.00	.2686-01	.3228-01	.3228-01	.9000	.1168-02	.1404-02	.9194	6.531	535.6
107	.95000	.90000	385.00	.1656-01	.1987-01	.1987-01	.9000	.7201-03	.8641-03	.5718	3.890	528.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2663

OH84B 60-0 VERTICAL TAIL

(R4UT11)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
141	3.698	8.000	35.01	-3.996	856.0	1352.	97.95	.8768-01	3.928	3881.	.2416-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
141	.4920-01	.2105-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
141	.10000+00	.10000+00	340 00	.2637-01	.3165-01	.3165-01	.9000	.1298-02	.1557-02	1.051	7.446	541.4
141	.10000+00	.30000	341.00	.1385-01	.1661-01	.1661-01	.9000	.6813-03	.8172-03	.5535	4.053	539.2
141	.10000+00	.50000	342 00	.9960-02	.1193-01	.1193-01	.9000	.4901-03	.5872-03	.4004	3.039	534.5
141	.20000	.10000+00	343.00	.1497-01	.1795-01	.1795-01	.9000	.7366-03	.8832-03	.5997	4.324	537.6
141	.20000	.20000	344.00	.9519-02	.1141-01	.1141-01	.9000	.4684-03	.5616-03	.3815	2.824	537.2
141	.20000	.40000	345.00	.1690-01	.2027-01	.2027-01	.9000	.8317-03	.9974-03	.6768	4.832	538.0
141	.20000	.60000	346.00	.1328-01	.1591-01	.1591-01	.9000	.6534-03	.7828-03	.5341	3.858	534.2
141	.20000	.80000	347 00	.3756-02	.4494-02	.4494-02	.9000	.1848-03	.2211-03	.1521	1.084	528.8
141	.30000	.50000-01	348 00	.1696-01	.2036-01	.2036-01	.9000	.8346-03	.1002-02	.6762	5.079	541.5
141	.30000	.20000	349 00	.1083-01	.1298-01	.1298-01	.9000	.5327-03	.6387-03	.4340	3.130	536.9
141	.30000	.40000	350 00	.2167-01	.2599-01	.2599-01	.9000	.1066-02	.1279-02	.8673	6.251	538.3
141	.30000	.50000	351 00	.2864-01	.3437-01	.3437-01	.9000	.1409-02	.1691-02	1.143	8.021	540.7
141	.30000	.90000	352.00	.7333-02	.8776-02	.8776-02	.9000	.3608-03	.4318-03	.2966	2.219	529.6
141	.40000	.10000+00	353 00	.3079-01	.3695-01	.3695-01	.9000	.1515-02	.1818-02	1.228	8.984	541.0
141	.40000	.20000	354 00	.2460-01	.2952-01	.2952-01	.9000	.1210-02	.1453-02	.9812	6.950	541.1
141	.40000	.50000	356 00	.2535-01	.3041-01	.3041-01	.9000	.1247-02	.1496-02	1.014	7.358	538.4
141	.40000	.90000	358 00	.1227-01	.1469-01	.1469-01	.9000	.6036-03	.7229-03	.4944	3.717	532.7
141	.50000	.50000-01	359 00	.5603-01	.6749-01	.6749-01	.9000	.2757-02	.3321-02	2.194	17.05	555.9
141	.50000	.70000	360 00	.1354-01	.1622-01	.1622-01	.9000	.6663-03	.7981-03	.5452	4.361	533.4
141	.50000	.90000	361 00	.1206-01	.1445-01	.1445-01	.9000	.5936-03	.7109-03	.4861	3.458	532.6
141	.60000	.50000-01	362 00	.5888-01	.7091-01	.7091-01	.9000	.2897-02	.3489-02	2.308	17.63	555.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2664

## OH8' 7 60-0 VERTICAL TAIL

(R4UT11)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
141	.60000	.10000+00	363.00	.5671-01	.6819-01	.6819-01	.9000	.2790-02	.3355-02	2.239	16.86	549.2
141	.60000	.20000	364.00	.4887-01	.5877-01	.5877-01	.9000	.2405-02	.2892-02	1.930	14.16	549.0
141	.60000	.40000	365.00	.4022-01	.4828-01	.4828-01	.9000	.1979-02	.2375-02	1.602	11.23	542.1
141	.60000	.50000	366.00	.3207-01	.3847-01	.3847-01	.9000	.1578-02	.1893-02	1.281	9.084	539.6
141	.60000	.70000	367.00	.1362-01	.1631-01	.1631-01	.9000	.6699-03	.8024-03	.5483	4.387	533.2
141	.60000	.90000	368.00	.1236-01	.1479-01	.1479-01	.9000	.6079-03	.7279-03	.4987	3.727	531.4
141	.70000	.50000-01	369.00	.4906-01	.5907-01	.5907-01	.9000	.2414-02	.2906-02	1.925	15.52	554.1
141	.70000	.70000	370.00	.1430-01	.1714-01	.1714-01	.9000	.7038-03	.8431-03	.5756	4.687	533.8
141	.70000	.90000	371.00	.5008-02	.6000-02	.6000-02	.9000	.2464-03	.2952-03	.2015	1.556	533.9
141	.80000	.50000-01	372.00	.2057-03	.2651-03	.2651-03	.9000	.1012-04	.1304-04	.6103-02	.4249-01	748.6
141	.80000	.10000+00	373.00	.4625-01	.5559-01	.5559-01	.9000	.2276-02	.2735-02	1.829	13.88	547.7
141	.80000	.40000	374.00	.3810-01	.4576-01	.4576-01	.9000	.1875-02	.2252-02	1.513	10.87	544.5
141	.80000	.50000	375.00	.2963-01	.3556-01	.3556-01	.9000	.1458-02	.1750-02	1.181	8.105	541.6
141	.80000	.70000	376.00	.1667-01	.1998-01	.1998-01	.9000	.8203-03	.9831-03	.6696	5.351	535.5
141	.80000	.90000	377.00	.1407-01	.1686-01	.1686-01	.9000	.6924-03	.8294-03	.5668	4.379	533.1
141	.90000	.10000+00	378.00	.6465-01	.7779-01	.7779-01	.9000	.3181-02	.3828-02	2.545	18.22	551.5
141	.90000	.30000	379.00	.3272-01	.3928-01	.3928-01	.9000	.1610-02	.1933-02	1.304	9.533	542.0
141	.90000	.50000	380.00	.1843-01	.2208-01	.2208-01	.9000	.9068-03	.1086-02	.7410	5.184	534.4
141	.90000	.70000	381.00	.1460-01	.1748-01	.1748-01	.9000	.7182-03	.8602-03	.5881	4.278	532.8
141	.90000	.90000	382.00	.1455-01	.1744-01	.1744-01	.9000	.7159-03	.8579-03	.5847	4.391	535.0
141	.95000	.30000	383.00	.2909-01	.3490-01	.3490-01	.9000	.1431-02	.1717-02	1.161	8.279	540.4
141	.95000	.50000	384.00	.2661-01	.3194-01	.3194-01	.9000	.1309-02	.1571-02	1.060	7.509	541.6
141	.95000	.90000	385.00	.1597-01	.1914-01	.1914-01	.9000	.7859-03	.9416-03	.6425	4.359	534.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2665

OH84B 60-0 VERTICAL TAIL

(R4UT12)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
161	2.002	7.980	34 99	-2.012	436 0	1304.	94.91	.4539-01	2.023	3811.	.1291-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) *.0175
161	.3509-01	.2869-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
161	.10000+00	.10000+00	340.00	.2022-01	.2435-01	.2435-01	.9000	.7097-03	.8546-03	.5458	3.878	534.7
161	.10000+00	.30000	341 00	.1432-01	.1724-01	.1724-01	.9000	.5025-03	.6049-03	.3870	2.842	533.5
161	.10000+00	.50000	342.00	.1084-01	.1305-01	.1305-01	.9000	.3805-03	.4579-03	.2937	2.232	531.8
161	.20000	.10000+00	343 00	.2353-01	.2832-01	.2832-01	.9000	.8258-03	.9939-03	.6365	4.601	532.8
161	.20000	.20000	344 00	.1212-01	.1458-01	.1458-01	.9000	.4253-03	.5117-03	.3283	2.437	531.7
161	.20000	.40000	345.00	.5694-02	.6848-02	.6848-02	.9000	.1998-03	.2403-03	.1546	1.108	530.0
161	.20000	.60000	346.00	.4058-02	.4879-02	.4879-02	.9000	.1424-03	.1712-03	.1104	.7995	528.6
161	.20000	.80000	347.00	.2655-02	.3190-02	.3190-02	.9000	.9316-04	.1119-03	.7237-01	.5164	526.8
161	.30000	.50000-01	348.00	.1749-01	.2106-01	.2106-01	.9000	.6138-03	.7389-03	.4726	3.563	533.8
161	.30000	.20000	349 00	.8614-02	.1036-01	.1036-01	.9000	.3023-03	.3636-03	.2337	1.691	530.5
161	.30000	.40000	350 00	.5960-02	.7166-02	.7166-02	.9000	.2091-03	.2515-03	.1619	1 172	529.5
161	.30000	.50000	351 00	.4860-02	.5844-02	.5844-02	.9000	.1705-03	.2051-03	.1321	.9321	529 3
161	.30000	.90000	352 00	.3118-02	.3747-02	.3747-02	.9000	.1094-03	.1315-03	.8495-01	.6363	527 2
161	.40000	.10000+00	353.00	.1398-01	.1682-01	.1682-01	.9000	.4907-03	.5903-03	.3792	2.788	531 0
161	.40000	.20000	354 00	.1443-01	.1736-01	.1736-01	.9000	.5063-03	.6092-03	.3907	2.780	531.9
161	.40000	.50000	356 00	.1127-01	.1355-01	.1355-01	.9000	.3953-03	.4755-03	.3056	2 226	530 6
161	.40000	.90000	358.00	.3589-02	.4314-02	.4314-02	.9000	.1259-03	.1514-03	.9773-01	.7367	527.7
161	.50000	.50000-01	359 00	.2590-01	.3121-01	.3121-01	.9000	.9089-03	.1095-02	.6960	5.457	537.9
161	.50000	.70000	360 00	.1022-01	.1230-01	.1230-01	.9000	.3588-03	.4316-03	.2774	2.222	530.6
161	.50000	.90000	361 00	.6705-02	.8062-02	.8062-02	.9000	.2353-03	.2829-03	.1823	1.299	529.0
161	.60000	.50000-01	362 00	.4055-01	.4891-01	.4891-01	.9000	.1423-02	.1716-02	1 086	8.355	540.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT12)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
161	.60000	.10000+00	363.00	.3774-01	.4549-01	.4549-01	.9000	.1324-02	.1596-02	1.013	7.673	538.6
161	.60000	20000	364.00	.3165-01	.3813-01	.3813-01	.9000	.1111-02	.1338-02	.8513	6.281	537.2
161	.60000	40000	365.00	.3717-01	.4477-01	.4477-01	.9000	.1304-02	.1571-02	1.001	7.041	536.2
161	.60000	.50000	366.00	.3804-01	.4583-01	.4583-01	.9000	.1335-02	.1608-02	1.024	7.267	536.7
161	.60000	.70000	367.00	.2215-01	.2666-01	.2666-01	.9000	.7773-03	.9357-03	.5985	4.787	533.6
161	.60000	.90000	368.00	.1795-01	.2160-01	.2160-01	.9000	.6300-03	.7578-03	.4869	3.641	530.7
161	.70000	.50000-01	369.00	.4890-01	.5903-01	.5903-01	.9000	.1716-02	.2071-02	1.305	10.57	543.5
161	.70000	70000	370.00	.1597-01	.1921-01	.1921-01	.9000	.5603-03	.6742-03	.4325	3.525	531.9
161	.70000	.90000	371.00	.4919-02	.5919-02	.5919-02	.9000	.1726-03	.2077-03	.1332	1.029	532.2
161	.80000	.50000-01	372.00	.3029-02	.4000-02	.4000-02	.9000	.1063-03	.1404-03	.5704-01	.3938	767.0
161	.80000	.10000+00	373.00	.5372-01	.6479-01	.6479-01	.9000	.1885-02	.2274-02	1.438	10.95	540.9
161	.80000	.40000	374.00	.2501-01	.3012-01	.3012-01	.9000	.8776-03	.1057-02	.6748	4.872	534.8
161	.80000	.50000	375.00	.2204-01	.2654-01	.2654-01	.9000	.7736-03	.9312-03	.5958	4.106	533.5
161	.80000	.70000	376.00	.1491-01	.1793-01	.1793-01	.9000	.5231-03	.6293-03	.4039	3.234	531.6
161	.80000	.90000	377.00	.1289-01	.1550-01	.1550-01	.9000	.4522-03	.5438-03	.3499	2.708	529.7
161	.90000	.10000+00	378.00	.6519-01	.7869-01	.7869-01	.9000	.2288-02	.2761-02	1.739	12.50	543.4
161	.90000	.30000	379.00	.2847-01	.3429-01	.3429-01	.9000	.9992-03	.1203-02	.7682	5.638	534.8
161	.90000	.50000	380.00	.3152-02	.3796-02	.3796-02	.9000	.1108-03	.1332-03	.8596-01	.6033	528.0
161	.90000	.70000	381.00	.1150-01	.1383-01	.1383-01	.9000	.4035-03	.4852-03	.3126	2.278	529.1
161	.90000	.90000	382.00	.1164-01	.1400-01	.1400-01	.9000	.4085-03	.4913-03	.3161	2.380	529.9
161	.95000	.30000	383.00	.2762-01	.3326-01	.3326-01	.9000	.9694-03	.1167-02	.7455	5.331	534.7
161	.95000	.50000	384.00	.2069-01	.2490-01	.2490-01	.9000	.7260-03	.8739-03	.5594	3.978	533.2
161	.95000	.90000	385.00	.1447-01	.1740-01	.1740-01	.9000	.5079-03	.6108-03	.3932	2.674	529.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2667

OH84B 60-0 VERTICAL TAIL

(R4UT12)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
104	3.010	7.990	35 C1	-1.989	670.6	1321.	95.92	.6925-01	3.095	3836.	.1949-02	.7719-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
104	4350-01	.2338-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(10) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
104	.10000+00	.10000+00	340.00	.2293-01	.2758-01	.2758-01	.9000	.9975-03	.1200-02	.7819	5.551	536.8
104	.10000+00	.30000	341.00	.1513-01	.1819-01	.1819-01	.9000	.6580-03	.7910-03	.5168	3.791	535.3
104	.10000+00	.50000	342.00	.1028-01	.1235-01	.1235-01	.9000	.4472-03	.5371-03	.3527	2.680	532.0
104	.20000	.10000+00	343.00	.1905-01	.2289-01	.2289-01	.9000	.8287-03	.9958-03	.6525	4.715	533.3
104	.20000	.20000	344.00	.1160-01	.1394-01	.1394-01	.9000	.5048-03	.6064-03	.3978	2.952	532.6
104	.20000	.40000	345.00	.7555-02	.9072-02	.9072-02	.9000	.3286-03	.3946-03	.2595	1.859	530.9
104	.20000	.60000	346.00	.5480-02	.6576-02	.6576-02	.9000	.2384-03	.2860-03	.1888	1.368	528.4
104	.20000	.80000	347.00	.3272-02	.3925-02	.3925-02	.9000	.1423-03	.1707-03	.1131	.8068	526.4
104	.30000	.50000-01	348.00	.1626-01	.1955-01	.1955-01	.9000	.7074-03	.8502-03	.5560	4.191	534.6
104	.30000	.20000	349.00	.9111-02	.1094-01	.1094-01	.9000	.3963-03	.4759-03	.3130	2.265	530.8
104	.30000	.40000	350.00	.8047-02	.9660-02	.9660-02	.9000	.3500-03	.4202-03	.2768	2.004	529.8
104	.30000	.50000	351.00	.7692-02	.9234-02	.9234-02	.9000	.3346-03	.4016-03	.2647	1.868	529.6
104	.30000	.90000	352.00	.3600-02	.4318-02	.4318-02	.9000	.1566-03	.1878-03	.1244	.9323	526.2
104	.40000	.10000+00	353.00	.1582-01	.1901-01	.1901-01	.9000	.6883-03	.8268-03	.5426	3.987	532.3
104	.40000	.20000	354.00	.1448-01	.1740-01	.1740-01	.9000	.6300-03	.7569-03	.4964	3.531	532.7
104	.40000	.50000	356.00	.1335-01	.1603-01	.1603-01	.9000	.5807-03	.6973-03	.4586	3.339	530.9
104	.40000	.90000	358.00	.5303-02	.6361-02	.6361-02	.9000	.2307-03	.2767-03	.1831	1.381	526.8
104	.50000	.50000-01	359.00	.3317-01	.3994-01	.3994-01	.9000	.1443-02	.1737-02	1.125	8.804	541.2
104	.50000	.70000	360.00	.1313-01	.1576-01	.1576-01	.9000	.5710-03	.6856-03	.4510	3.613	530.7
104	.50000	.90000	361.00	.1090-01	.1308-01	.1308-01	.9000	.4740-03	.5689-03	.3753	2.675	528.8
104	.60000	.50000-01	362.00	.4881-01	.5883-01	.5883-01	.9000	.2123-02	.2559-02	1.646	12.63	545.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2668

## OH84B 60-0 VERTICAL TAIL

(R4UT12)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
104	.60000	.10000+00	363.00	.4241-01	.5103-01	.5103-01	.9000	.1845-02	.2220-02	1.442	10.92	538.9
104	.60000	.20000	364.00	.3424-01	.4118-01	.4118-01	.9000	.1489-02	.1791-02	1.166	8.597	537.9
104	.60000	.40000	365.00	.3315-01	.3986-01	.3986-01	.9000	.1442-02	.1734-02	1.131	7.959	536.0
104	.60000	.50000	366.00	.3001-01	.3607-01	.3607-01	.9000	.1305-02	.1569-02	1.025	7.284	535.1
104	.60000	.70000	367.00	.1644-01	.1974-01	.1974-01	.9000	.7152-03	.8588-03	.5647	4.523	531.0
104	.60000	.90000	368.00	.1471-01	.1765-01	.1765-01	.9000	.6397-03	.7677-03	.5065	3.790	528.9
104	.70000	.50000-01	369.00	.6282-01	.7581-01	.7581-01	.9000	.2732-02	.3298-02	2.105	17.00	550.2
104	.70000	.70000	370.00	.1542-01	.1852-01	.1852-01	.9000	.6708-03	.8055-03	.5301	4.324	530.5
104	.70000	.90000	371.00	.4395-02	.5280-02	.5280-02	.9000	.1912-03	.2296-03	.1507	1.165	532.2
104	.80000	.50000-01	372.00	.5831-03	.7637-03	.7637-03	.9000	.2536-04	.3322-04	1417-01	9802-01	762.2
104	.80000	.10000+00	373.00	.6129-01	.7385-01	.7385-01	.9000	.2666-02	.3212-02	2.070	15.74	544.1
104	.80000	.40000	374.00	.2995-01	.3602-01	.3602-01	.9000	.1303-02	.1567-02	1.021	7.364	536.9
104	.80000	.50000	375.00	.2393-01	.2876-01	.2876-01	.9000	.1041-02	.1251-02	.8186	5.639	534.3
104	.80000	.70000	376.00	.1493-01	.1792-01	.1792-01	.9000	.6492-03	.7795-03	.5129	4.109	530.5
104	.80000	.90000	377.00	.1354-01	.1625-01	.1625-01	.9000	.5888-03	.7068-03	.4660	3.607	529.2
104	.90000	.10000+00	378.00	.6543-01	.8009-01	.8009-01	.9000	.2890-02	.3484-02	2.239	16.07	546.0
104	.90000	.30000	379.00	.3229-01	.3882-01	.3882-01	.9000	.1404-02	.1689-02	1.102	8.085	535.8
104	.90000	.50000	380.00	.7440-02	.8928-02	.8928-02	.9000	.3236-03	.3883-03	.2565	1.800	528.2
104	.90000	.70000	381.00	.1291-01	.1549-01	.1549-01	.9000	.5614-03	.6737-03	.4448	3.243	528.4
104	.90000	.90000	382.00	.1379-01	.1655-01	.1655-01	.9000	.5997-03	.7199-03	.4743	3.572	529.7
104	.95000	.30000	383.00	.3057-01	.3675-01	.3675-01	.9000	.1330-02	.1599-02	1.044	7.459	535.8
104	.95000	.50000	384.00	.2501-01	.3006-01	.3006-01	.9000	.1088-02	.1308-02	.8553	6.078	534.6
104	.95000	.90000	385.00	.1530-01	.1836-01	.1836-01	.9000	.6654-03	.7986-03	.5266	3.582	529.2



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2669

OH84B 60-0 VERTICAL TAIL

(R4UT12)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
138	3.668	8.000	35.03	-1.972	849.0	1352.	97 95	8696-01	3.896	3881.	.2396-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
138	.4900-01	.2113-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
138	.10000+00	.10000+00	340.00	.2481-01	.2979-01	.2979-01	.9000	.1216-02	.1460-02	.9821	6.947	543.7
138	.10000+00	.30000	341.00	.1702-01	.2043-01	.2043-01	.9000	.8339-03	.1001-02	.6754	4.939	541.8
138	.10000+00	.50000	342.00	.9624-02	.1154-01	.1154-01	.9000	.4716-03	.5657-03	.3834	2.904	538.6
138	.20000	.10000+00	343.00	.1726-01	.2071-01	.2071-01	.9000	.8458-03	.1015-02	.6861	4.939	540.6
138	.20000	.20000	344.00	.1187-01	.1424-01	.1424-01	.9000	.5816-03	.6978-03	.4722	3.491	539.8
138	.20000	.40000	345.00	.9061-02	.1087-01	.1087-01	.9000	.4440-03	.5325-03	.3610	2.576	538.6
138	.20000	.60000	346.00	.6215-02	.7451-02	.7451-02	.9000	.3045-03	.3651-03	.2482	1.791	536.6
138	.20000	.80000	347.00	.3469-02	.4155-02	.4155-02	.9000	.1700-03	.2036-03	.1390	.9881	533.9
138	.30000	.50000-01	348 00	.1617-01	.1942-01	.1942-01	.9000	.7925-03	.9514-03	.6412	4 814	542 5
138	.30000	.20000	349 00	.9411-02	.1129-01	.1129-01	.9000	.4612-03	.5531-03	.3749	2.702	538.7
138	.30000	.40000	350 00	.8723-02	.1046-01	.1046-01	.9000	.4274-03	.5126-03	.3478	2.507	538.0
138	.30000	.50000	351 00	.8210-02	.9844-02	.9844-02	.9000	.4023-03	.4824-03	.3275	2.302	537.6
138	.30000	.90000	352 00	.3643-02	.4364-02	.4364-02	.9000	.1785-03	.2138-03	.1460	1 090	533.7
138	.40000	.10000+00	353 00	.1525-01	.1829-01	.1829-01	.9000	.7472-03	.8964-03	.6067	4 441	539 7
138	.40000	.20000	354 00	.1373-01	.1648-01	.1648-01	.9000	.6728-03	.8074-03	.5456	3 865	540 8
138	.40000	.50000	355 00	.1275-01	.1529-01	.1529-01	.9000	.6247-03	.7493-03	.5075	3 680	539 2
138	.40000	.90000	358 00	.6177-02	.7403-02	.7403-02	.9000	.3027-03	.3627-03	.2471	1.855	535.4
138	.50000	.50000-01	359 00	.2928-01	.3522-01	.3522-01	.9000	.1435-02	.1726-02	1 150	8.960	550 2
138	.50000	.70000	360 00	.1148-01	.1377-01	.1377-01	.9000	.5625-03	.6747-03	.4573	3 648	538 7
138	.50000	.90000	361 00	.1066-01	.1279-01	.1279-01	.9000	.5226-03	.6266-03	.4255	3 020	537 4
138	.60000	.50000-01	362 00	.4697-01	.5659-01	.5659-01	.9000	.2302-02	.2773-02	1.831	13.98	556.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2670

## OH84B 60-0 VERTICAL TAIL

(R4UT12)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
138	.60000	.10000+00	363.00	.4144-01	.4984-01	.4984-01	.9000	.2031-02	.2442-02	1.628	12.26	549.9
138	.60000	.20000	364.00	.3073-01	.3699-01	.3699-01	.9000	.1508-02	.1813-02	1.214	8.916	546.6
138	.60000	.40000	365.00	.2927-01	.3515-01	.3515-01	.9000	.1434-02	.1722-02	1.159	8.122	543.5
138	.60000	.50000	366.00	.2657-01	.3191-01	.3191-01	.9000	.1302-02	.1564-02	1.052	7.440	543.8
138	.60000	.70000	367.00	.1431-01	.1716-01	.1716-01	.9000	.7011-03	.8410-03	.5696	4.543	539.2
138	.60000	.90000	368.00	.1327-01	.1592-01	.1592-01	.9000	.6505-03	.7800-03	.5297	3.947	537.4
138	.70000	.50000-01	369.00	.6492-01	.7837-01	.7837-01	.9000	.3181-02	.3840-02	2.506	20.10	563.8
138	.70000	.70000	370.00	.1434-01	.1720-01	.1720-01	.9000	.7026-03	.8429-03	.5705	4.632	539.6
138	.70000	.90000	371.00	.4971-02	.5959-02	.5959-02	.9000	.2436-03	.2920-03	.1987	1.532	536.2
138	.80000	.50000-01	372.00	.4726-03	.6235-03	.6235-03	.9000	.2316-04	.3055-04	.1293-01	.8822-01	793.3
138	.80000	.10000+00	373.00	.5932-01	.7145-01	.7145-01	.9000	.2907-02	.3501-02	2.315	17.50	555.3
138	.80000	.40000	374.00	.3263-01	.3922-01	.3922-01	.9000	.1599-02	.1922-02	1.286	9.227	547.3
138	.80000	.50000	375.00	.2608-01	.3133-01	.3133-01	.9000	.1278-02	.1535-02	1.031	7.063	545.0
138	.80000	.70000	376.00	.1525-01	.1830-01	.1830-01	.9000	.7473-03	.8967-03	.6063	4.833	540.4
138	.80000	.90000	377.00	.1390-01	.1668-01	.1668-01	.9000	.6813-03	.8171-03	.5539	4.266	538.7
138	.90000	.10000+00	378.00	.6477-01	.7805-01	.7805-01	.9000	.3174-02	.3825-02	2.521	17.99	557.4
138	.90000	.30000	379.00	.3255-01	.3912-01	.3912-01	.9000	.1595-02	.1917-02	1.284	9.366	546.7
138	.90000	.50000	380.00	.8101-02	.9710-02	.9710-02	.9000	.3970-03	.4758-03	.3238	2.264	536.0
138	.90000	.70000	381.00	.1323-01	.1587-01	.1587-01	.9000	.6485-03	.7778-03	.5274	3.826	538.5
138	.90000	.90000	382.00	.1301-01	.1561-01	.1561-01	.9000	.6375-03	.7650-03	.5171	3.873	540.5
138	.95000	.30000	383.00	.2861-01	.3438-01	.3438-01	.9000	.1402-02	.1685-02	1.130	8.037	545.7
138	.95000	.50000	384.00	.2569-01	.3087-01	.3087-01	.9000	.1259-02	.1513-02	1.014	7.165	546.1
138	.95000	.90000	385.00	.1587-01	.1904-01	.1904-01	.9000	.7775-03	.9328-03	.6315	4.273	539.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2671

OH84B 60-0 VERTICAL TAIL

(R4UT13)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -1.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
158	2.023	7.980	35.02	-.9923	435 0	1293.	94.11	.4529-01	2.019	3795.	.1299-02	.7573-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
158	.3500-01	.2857-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
158	.10000+00	.10000+00	340.00	.2149-01	.2593-01	.2593-01	.9000	.7523-03	.9077-03	.5679	4.030	537.7
158	.10000+00	.30000	341.00	.1321-01	.1594-01	.1594-01	.9000	.4624-03	.5578-03	.3497	2.564	536.4
158	.10000+00	.50000	342 00	.9080-02	.1095-01	.1095-01	.9000	.3178-03	.3832-03	.2406	1.825	535.5
158	.20000	.10000+00	343 00	.2001-01	.2413-01	.2413-01	.9000	.7003-03	.8445-03	.5301	3.826	535.7
158	.20000	.20000	344.00	.1029-01	.1240-01	.1240-01	.9000	.3601-03	.4340-03	.2731	2.024	534.3
158	.20000	.40000	345.00	.5250-02	.6327-02	.6327-02	.9000	.1837-03	.2214-03	.1395	.9981	533.5
158	.20000	.60000	346 00	.2958-02	.3564-02	.3564-02	.9000	.1035-03	.1247-03	.7875-01	.5694	532.0
158	.20000	.80000	347 00	.1887-02	.2273-02	.2273-02	.9000	.6605-04	.7954-04	.5032-01	.3583	530.8
158	.30000	.50000-01	348 00	.1949-01	.2352-01	.2352-01	.9000	.6823-03	.8231-03	.5154	3.879	537.2
158	.30000	.20000	349 00	.7107-02	.8565-02	.8565-02	.9000	.2488-03	.2998-03	.1889	1.365	533.2
158	.30000	.40000	350.00	.4200-02	.5060-02	.5060-02	.9000	.1470-03	.1771-03	.1117	.8077	532.5
158	.30300	.50000	351 00	.3326-02	.4007-02	.4007-02	.9000	.1164-03	.1402-03	.8856-01	.6243	531.9
158	.30000	.90000	352 00	.2341-02	.2819-02	.2819-02	.9000	.8193-04	.9868-04	.6240-01	.4665	531.0
158	.40000	.10000+00	353 00	.1382-01	.1666-01	.1666-01	.9000	.4838-03	.5832-03	.3670	2.694	534.1
158	.40000	.20000	354 00	.1085-01	.1308-01	.1308-01	.9000	.3797-03	.4577-03	.2882	2.049	533.8
158	.40000	.40000	355 00	.2322-09	.2629-09	.2629-09	.9000	.8126-11	.9201-11	.8994-08	.7767-07	185.9
158	.40000	.50000	356 00	.6224-02	.7500-02	.7500-02	.9000	.2178-03	.2625-03	.1655	1.204	532.8
158	.40000	.90000	358 00	.3155-02	.3800-02	.3800-02	.9000	.1104-03	.1330-03	.8404-01	.6323	531.5
158	.50000	.50000-01	359 00	.3072-01	.3710-01	.3710-01	.9000	.1075-02	.1299-02	.8075	6.320	541.6
158	.50000	.70000	360 00	.6777-02	.8168-02	.8168-02	.9000	.2372-03	.2859-03	.1801	1.440	533.5
158	.50000	.90000	361.00	.4800-02	.5784-02	.5784-02	.9000	.1680-03	.2024-03	.1277	.9084	532.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2672

## OH84B 60-0 VERTICAL TAIL

(R4UT13)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R - FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
158	.60000	.50000-01	362.00	.4803-01	.5806-01	.5806-01	.9000	.1681-02	.2032-02	1.257	9.655	514.7
158	.60000	.10000+00	363.00	.4338-01	.5240-01	.5240-01	.9000	.1518-02	.1834-02	1.140	8.624	541.5
158	.60000	.20000	364 00	.3549-01	.4286-01	.4286-01	.9000	.1242-02	.1500-02	.9336	6.875	541.1
158	.60000	.40000	365 00	.3591-01	.4335-01	.4335-01	.9000	.1257-02	.1517-02	.9474	6.654	539.0
158	.60000	.50000	366 00	.3624-01	.4375-01	.4375-01	.9000	.1268-02	.1531-02	.9555	6.774	539.4
158	.60000	.70000	367 00	.2098-01	.2530-01	.2530-01	.9000	.7342-03	.8855-03	.5552	4.434	536.5
158	.60000	.90000	368.00	.1639-01	.1976-01	.1976-01	.9000	.5738-03	.6916-03	.4354	3.250	533.8
158	.70000	.50000-01	369.00	.5064-01	.6125-01	.6125-01	.9000	.1772-02	.2144-02	1.322	10.70	546.6
158	.70000	.70000	370.00	.1656-01	.1997-01	.1997-01	.9000	.5796-03	.6989-03	.4389	3.572	535.3
158	.70000	.90000	371 00	.5449-02	.6568-02	.6568-02	.9000	.1907-03	.2299-03	.1447	1.117	533.9
158	.80000	.50000-01	372.00	.5140-02	.6911-02	.6911-02	.9000	.1799-03	.2419-03	.9073-01	.6204	788.3
158	.80000	.10000+00	373 00	.4597-01	.5553-01	.5553-01	.9000	.1609-02	.1944-02	1.208	9.192	542.1
158	.80000	.40000	374 00	.2912-01	.3514-01	.3514-01	.9000	.1019-02	.1230-02	.7683	5.537	538.7
158	.80000	.50000	375 00	.2398-01	.2893-01	.2893-01	.9000	.8393-03	.1013-02	.6342	4.363	537.0
158	.80000	.70000	376 00	.1516-01	.1828-01	.1828-01	.9000	.5307-03	.6398-03	.4021	3.214	534.9
158	.80000	.90000	377.00	.1267-01	.1527-01	.1527-01	.9000	.4436-03	.5345-03	.3369	2.603	533.1
158	.90000	.10000+00	378 00	.4920-01	.5945-01	.5945-01	.9000	.1722-02	.2081-02	1.291	9.281	543.1
158	.90000	.30000	379.00	.2568-01	.3098-01	.3098-01	.9000	.8989-03	.1084-02	.6792	4.979	537.1
158	.90000	.50000	380.00	.2334-02	.2811-02	.2811-02	.9000	.8168-04	.9839-04	.6217-01	.4356	531.5
158	.90000	.70000	381.00	.1285-01	.1549-01	.1549-01	.9000	.4498-03	.5420-03	.3419	2.488	532.6
158	.90000	.90000	382.00	.1428-01	.1721-01	.1721-01	.9000	.4997-03	.6022-03	.3797	2.854	533.0
158	.95000	.30000	383 00	.2415-01	.2913-01	.2913-01	.9000	.8451-03	.1019-02	.6391	4.567	536.4
158	.95000	.50000	384 00	.2195-01	.2647-01	.2647-01	.9000	.7683-03	.9265-03	.5814	4.129	535.9
158	.95000	.90000	385.00	.1683-01	.2028-01	.2028-01	.9000	.5890-03	.7098-03	.4475	3.038	533.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2673

OH84B 60-0 VERTICAL TAIL

(R4UT13)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -1.000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
101	2.984	7.990	35.02	- .9871	670.0	1328.	96.43	.6919-01	3.092	3846	.1937-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
101	.4352-01	.2346-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
101	.10000+00	.10000+00	340.00	.2278-01	.2741-01	.2741-01	.9000	.9912-03	.1193-02	.7794	5.519	541.4
101	.10000+00	.30000	341.00	.1554-01	.1869-01	.1869-01	.9000	.6763-03	.8134-03	.5326	3.898	540.1
101	.10000+00	.50000	342.00	.8966-02	.1077-01	.1077-01	.9000	.3902-03	.4689-03	.3085	2.338	537.0
101	.20000	.10000+00	343.00	.1770-01	.2127-01	.2127-01	.9000	.7701-03	.9258-03	.6082	4.384	537.9
101	.20000	.20000	344.00	.1136-01	.1365-01	.1365-01	.9000	.4942-03	.5941-03	.3906	2.891	537.4
101	.20000	.40000	345.00	.7286-02	.8754-02	.8754-02	.9000	.3171-03	.3809-03	.2511	1.795	535.7
101	.20000	.60000	346.00	.4005-02	.4810-02	.4810-02	.9000	.1743-03	.2093-03	.1382	.9981	534.6
101	.20000	.80000	347.00	.2184-02	.2622-02	.2622-02	.9000	.9503-04	.1141-03	.7553-01	.5372	532.9
101	.30000	.50000-01	348.00	.1787-01	.2149-01	.2149-01	.9000	.7775-03	.9352-03	.6122	4.601	540.3
101	.30000	.20000	349.00	.8732-02	.1049-01	.1049-01	.9000	.3800-03	.4565-03	.3009	2.171	535.8
101	.30000	.40000	350.00	.6405-02	.7693-02	.7693-02	.9000	.2787-03	.3348-03	.2209	1.595	535.1
101	.30000	.50000	351.00	.5349-02	.6425-02	.6425-02	.9000	.2328-03	.2796-03	.1846	1.300	534.5
101	.30000	.90000	352.00	.2854-02	.3426-02	.3426-02	.9000	.1242-03	.1491-03	.9875-01	.7376	532.6
101	.40000	.10000+00	353.00	.1466-01	.1762-01	.1762-01	.9000	.6381-03	.7670-03	.5044	3.697	537.3
101	.40000	.20000	354.00	.1382-01	.1661-01	.1661-01	.9000	.6014-03	.7229-03	.4751	3.371	537.7
101	.40000	.50000	355.00	.1247-01	.1498-01	.1498-01	.9000	.5426-03	.6520-03	.4293	3.117	536.5
101	.40000	.90000	358.00	.3713-02	.4458-02	.4458-02	.9000	.1616-03	.1940-03	.1283	.9647	533.4
101	.50000	.50000-01	359.00	.2887-01	.3478-01	.3478-01	.9000	.1256-02	.1513-02	.9827	7.676	545.5
101	.50000	.70000	360.00	.1282-01	.1541-01	.1541-01	.9000	.5578-03	.6704-03	.4409	3.520	537.3
101	.50000	.90000	361.00	.8728-02	.1048-01	.1048-01	.9000	.3798-03	.4562-03	.3011	2.140	534.9
101	.60000	.50000-01	362.00	.4351-01	.5245-01	.5245-01	.9000	.1893-02	.2283-02	1.475	11.30	548.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT13)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
101	.60000	.10000+00	363.00	.3814-01	.4591-01	.4591-01	.9000	.1660-02	.1998-02	1.302	9.835	543.3
101	.60000	.20000	364.00	.3260-01	.3924-01	.3924-01	.9000	.1419-02	.1708-02	1.113	8.184	543.3
101	.60000	.40000	365.00	.3538-01	.4258-01	.4258-01	.9000	.1540-02	.1853-02	1.210	8.489	541.7
101	.60000	.50000	366.00	.3283-01	.3951-01	.3951-01	.9000	.1429-02	.1719-02	1.122	7.941	542.4
101	.60000	.70000	367.00	.1847-01	.2221-01	.2221-01	.9000	.8039-03	.9665-03	.6342	5.060	538.7
101	.60000	.90000	368.00	.1664-01	.1999-01	.1999-01	.9000	.7241-03	.8700-03	.5731	4.273	536.2
101	.70000	.50000-01	369.00	.5373-01	.6485-01	.6485-01	.9000	.2338-02	.2822-02	1.810	14.59	553.5
101	.70000	.70000	370.00	.1695-01	.2038-01	.2038-01	.9000	.7376-03	.8868-03	.5821	4.729	538.5
101	.70000	.90000	371.00	.4942-02	.5936-02	.5936-02	.9000	.2150-03	.2583-03	.1704	1.315	535.4
101	.80000	.50000-01	372.00	.3035-02	.3904-02	.3904-02	.9000	.1321-03	.1699-03	.7877-01	.5528	731.3
101	.80000	.10000+00	373.00	.4844-01	.5837-01	.5837-01	.9000	.2108-02	.2540-02	1.644	12.48	547.6
101	.80000	.40000	374.00	.3029-01	.3647-01	.3647-01	.9000	.1318-02	.1587-02	1.033	7.428	543.7
101	.80000	.50000	375.00	.2473-01	.2976-01	.2976-01	.9000	.1076-02	.1295-02	.8462	5.808	541.5
101	.80000	.70000	376.00	.1624-01	.1952-01	.1952-01	.9000	.7065-03	.8495-03	.5574	4.447	538.7
101	.80000	.90000	377.00	.1471-01	.1768-01	.1768-01	.9000	.6399-03	.7692-03	.5056	3.897	537.6
101	.90000	.10000+00	378.00	.5453-01	.6575-01	.6575-01	.9000	.2373-02	.2861-02	1.845	13.22	550.1
101	.90000	.30000	379.00	.2858-01	.3440-01	.3440-01	.9000	.1244-02	.1497-02	.9757	7.130	543.1
101	.90000	.50000	380.00	.4570-02	.5487-02	.5487-02	.9000	.1989-03	.2388-03	.1580	1.106	533.4
101	.90000	.70000	381.00	.1231-01	.1480-01	.1480-01	.9000	.5356-03	.6439-03	.4238	3.076	536.8
101	.90000	.90000	382.00	.1408-01	.1692-01	.1692-01	.9000	.6127-03	.7365-03	.4839	3.629	537.8
101	.95000	.30000	383.00	.2602-01	.3132-01	.3132-01	.9000	.1132-02	.1363-02	.8894	6.336	542.3
101	.95000	.50000	384.00	.2352-01	.2830-01	.2830-01	.9000	.1024-02	.1232-02	.3043	5.695	541.9
101	.95000	.90000	385.00	.1720-01	.2068-01	.2068-01	.9000	.7485-03	.8998-03	.5913	4.005	537.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT13)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
135	3 683	8.000	35.07	-.9652	852.5	1352.	97.95	.8732-01	3.912	3881.	.2406-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
135	.4910-01	.2109-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDI DEG. R /SEC	TW DEG. R
135	.10000+00	10000+00	340.00	.2429-01	.2914-01	2914-01	.9000	.1192-02	.1431-02	.9670	6.851	540.7
135	.10000+00	.30000	341.00	.1673-01	.2006-01	2006-01	.9000	.8215-03	.9852-03	.6685	4.858	538.0
135	.10000+00	.50000	342.00	.9255-02	.1109-01	.1109-01	.9000	.4545-03	.5445-03	.3715	2.820	534.1
135	.20000	10000+00	343.00	.1710-01	.2050-01	.2050-01	.9000	.8396-03	.1007-02	.6841	4.934	536.8
135	.20000	.20000	344.00	.1286-01	.1542-01	.1542-01	.9000	.6315-03	.7569-03	.5153	3.817	535.8
135	.20000	.40000	345.00	.9156-02	.1097-01	.1097-01	.9000	.4496-03	.5385-03	.3680	2.634	533.1
135	.20000	.60000	346.00	.5026-02	.6017-02	.6017-02	.9000	.2468-03	.2954-03	.2026	1.466	530.6
135	.20000	.80000	347.00	.2998-02	.3587-02	.3587-02	.9000	.1472-03	.1761-03	.1211	.8632	528.8
135	.30000	50000-01	348.00	.1708-01	.2048-01	.2048-01	.9000	.8385-03	.1006-02	.6819	5.130	538.4
135	.30000	.20000	349.00	.9822-02	.1177-01	.1177-01	.9000	.4823-03	.5777-03	.3946	2.851	533.5
135	.30000	.40000	350.00	.8884-02	.1064-01	.1064-01	.9000	.4362-03	.5224-03	.3575	2.585	532.1
135	.30000	.50000	351.00	.7541-02	.9028-02	.9028-02	.9000	.3703-03	.4433-03	.3038	2.142	531.3
135	.30000	.90000	352.00	.3772-02	.4512-02	.4512-02	.9000	.1852-03	.2216-03	.1525	1.142	528.1
135	.40000	10000+00	353.00	.1411-01	.1690-01	.1690-01	.9000	.6928-03	.8300-03	.5664	4.158	534.1
135	.40000	.20000	354.00	.1370-01	.1642-01	.1642-01	.9000	.6728-03	.8063-03	.5495	3.904	535.0
135	.40000	.50000	355.00	.1535-01	.1839-01	.1839-01	.9000	.7538-03	.9030-03	.6165	4.483	533.7
135	.40000	.90000	356.00	.4746-02	.5679-02	.5679-02	.9000	.2330-03	.2788-03	.1918	1.445	528.8
135	.50000	50000-01	359.00	.2742-01	.3293-01	.3293-01	.9000	.1347-02	.1617-02	.1.089	8.515	543.1
135	.50000	.70000	360.00	.1418-01	.1698-01	.1698-01	.9000	.6962-03	.8340-03	.5696	4.557	533.5
135	.50000	.90000	361.00	.1040-01	.1246-01	.1246-01	.9000	.5109-03	.6117-03	.4190	2.982	531.5
135	.60000	50000-01	362.00	.4339-01	.5216-01	.5216-01	.9000	.2130-02	.2561-02	.1.711	13.12	548.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT13)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
135	60000	10000+00	363.00	.3518-01	.4222-01	.4222-01	.9000	.1727-02	.2073-02	1.399	10.58	541.5
135	.60000	20000	364.00	.2737-01	.3284-01	.3284-01	.9000	.1344-02	.1612-02	1.092	8.045	539.5
135	60000	.40000	365.00	.3073-01	.3685-01	.3685-01	.9000	.1509-02	.1809-02	1.228	8.632	537.8
135	.60000	.50000	366.00	.2929-01	.3512-01	.3512-01	.9000	.1438-02	.1724-02	1.171	8.309	537.5
135	.60000	70000	367.00	.1669-01	.2000-01	.2000-01	.9000	.8197-03	.9820-03	.6700	5.358	534.2
135	.60000	.90000	368.00	.1519-01	.1818-01	.1818-01	.9000	.7456-03	.8928-03	.6115	4.570	531.6
135	70000	50000-01	369.00	.5400-01	.6501-01	.6501-01	.9000	.2652-02	.3192-02	2.117	17.07	553.4
135	.70000	70000	370.00	.1576-01	.1888-01	.1888-01	.9000	.7738-03	.9271-03	.6328	5.153	533.9
135	.70000	.90000	371.00	.4547-02	.5448-02	.5448-02	.9000	.2233-03	.2675-03	.1827	1.411	533.6
135	.80000	50000-01	372.00	.1337-02	.1720-02	.1720-02	.9000	.6566-04	.8447-04	3985-01	.2779	744.8
135	.80000	.10000+00	373.00	.5047-01	.6067-01	.6067-01	.9000	.2478-02	.2979-02	1.993	15.12	547.6
135	.80000	.40000	374.00	.2976-01	.3570-01	.3570-01	.9000	.1461-02	.1753-02	1.187	8.547	539.5
135	.80000	.50000	375.00	.2421-01	.2903-01	.2903-01	.9000	.1189-02	.1425-02	.9674	6.653	537.7
135	.80000	.70000	376.00	.1540-01	.1844-01	.1844-01	.9000	.7560-03	.9057-03	.6183	4.945	533.8
135	.80000	.90000	377.00	.1468-01	.1758-01	.1758-01	.9000	.7207-03	.8631-03	.5904	4.562	532.5
135	.90000	10000+00	378.00	.5558-01	.6805-01	.6805-01	.9000	.2778-02	.3341-02	2.229	15.97	549.5
135	.90000	.30000	379.00	.3016-01	.3618-01	.3618-01	.9000	.1481-02	.1776-02	1.202	8.802	539.7
135	.90000	.50000	380.00	.6160-02	.7373-02	.7373-02	.9000	.3025-03	.3620-03	2.485	1.743	530.1
135	.90000	.70000	381.00	.1196-01	.1432-01	.1432-01	.9000	.5873-03	.7032-03	.4820	3.509	531.1
135	.90000	.90000	382.00	.1363-01	.1633-01	.1633-01	.9000	.6694-03	.8017-03	.5485	4.125	532.3
135	.95000	.30000	383.00	.2841-01	.3408-01	.3408-01	.9000	.1395-02	.1673-02	1.134	8.089	539.0
135	.95000	.50000	384.00	.2440-01	.2927-01	.2927-01	.9000	.1198-02	.1437-02	.9745	6.912	538.4
135	.95000	.90000	385.00	.1588-01	.1902-01	.1902-01	.9000	.7799-03	.9340-03	6390	4.339	532.4



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT14)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
13	.5302	7.900	34 97	.2130-02	104 2	1240.	91.95	.1158-01	.5059	3714.	.3399-03	.7399-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
13	.1739-01	.5561-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
13	.10000+00	.10000+00	340.00	.2538-01	.3079-01	.3079-01	.9000	.4415-03	.5356-03	.3115	2.214	534.1
13	.10000+00	.30000	341.00	.8996-02	.1091-01	.1091-01	.9000	.1565-03	.1897-03	.1106	.8125	532.8
13	.10000+00	.50000	342.00	.6339-02	.7685-02	.7685-02	.9000	.1103-03	.1337-03	.7804-01	.5930	531.9
13	.20000	.10000+00	343.00	.1881-01	.2280-01	.2280-01	.9000	.3272-03	.3967-03	.2318	1.676	531.4
13	.20000	.20000	344 00	.7201-02	.8727-02	.8727-02	.9000	.1252-03	.1518-03	.8879-01	.6595	530.7
13	.20000	.40000	345 00	.3665-02	.4440-02	.4440-02	.9000	.6374-04	.7723-04	.4524-01	.3243	529.9
13	.20000	.60000	346.00	.3249-02	.3936-02	.3936-02	.9000	.5651-04	.6846-04	.4014-01	.2907	529.3
13	.20000	.80000	347 00	.2557-02	.3097-02	.3097-02	.9000	.4448-04	.5387-04	.3164-01	.2256	528.3
13	.30000	.50000-01	348.00	.2211-01	.2681-01	.2681-01	.9000	.3846-03	.4664-03	.2720	2.053	532 4
13	.30000	.20000	349 00	.5441-02	.6592-02	.6592-02	.9000	.9464-04	.1147-03	.6719-01	.4864	529.7
13	.30000	.40000	350.00	.2832-02	.3430-02	.3430-02	.9000	.4926-04	.5966-04	.3501-01	.2536	528 8
13	.30000	.50000	351.00	.2282-02	.2763-02	.2763-02	.9000	.3969-04	.4807-04	.2823-01	.1993	528 5
13	.30000	.90000	352 00	.3424-02	.4147-02	.4147-02	.9000	.5956-04	.7213-04	.4237-01	.3172	528 3
13	.40000	.10000+00	353 00	.1299-01	.1574-01	.1574-01	.9000	.2259-03	.2738-03	.1604	1.180	529 9
13	.40000	.20000	354 00	.7588-02	.9194-02	.9194-02	.9000	.1320-03	.1599-03	.9371-01	.6676	529.7
13	.40000	.50000	356.00	.2280-02	.2762-02	.2762-02	.9000	.3966-04	.4803-04	.2820-01	.2056	528 6
13	.40000	.90000	358 00	.4408-02	.5338-02	.5338-02	.9000	.7667-04	.9286-04	.5452-01	.4108	528 5
13	.50000	.50000-01	359 00	.2310-01	.2802-01	.2802-01	.9000	.4019-03	.4874-03	.2839	2.232	533 2
13	.50000	.70000	360 00	.1060-02	.1283-02	.1283-02	.9000	.1843-04	.2232-04	.1311-01	.1052	528 1
13	.50000	.90000	361 00	.4259-02	.5159-02	.5159-02	.9000	.7408-04	.8973-04	.5263-01	.3750	529 2
13	.60000	.50000-01	362 00	.2426-01	.2943-01	.2943-01	.9000	.4220-03	.5119-03	.2978	2 300	533 9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT14)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
13	.60000	.10000+00	363 00	.1982-01	.2403-01	.2403-01	.9000	.3448-03	.4181-03	.2438	1.852	532.5
13	.60000	.20000	364 00	.1137-01	.1378-01	.1378-01	.9000	.1977-03	.2396-03	.1400	1.036	531.3
13	.60000	.40000	365 00	.7242-02	.8774-02	.8774-02	.9000	.1260-03	.1526-03	.8944-01	.6312	529.7
13	.60000	.50000	366 00	.5173-02	.6266-02	.6266-02	.9000	.8998-04	.1090-03	.6394-01	.4557	529 0
13	.60000	.70000	367 00	.1980-02	.2398-02	.2398-02	.9000	.3444-04	.4170-04	.2450-01	.1965	528.3
13	.60000	.90000	368 00	.4071-02	.4930-02	.4930-02	.9000	.7081-04	.8575-04	.5041-01	.3775	527.8
13	.70000	.50000-01	369 00	.2540-01	.3081-01	.3081-01	.9000	.4418-03	.5360-03	.3116	2.537	534.3
13	.70000	.70000	370 00	.4402-02	.5332-02	.5332-02	.9000	.7657-04	.9274-04	.5445-01	.4446	528.6
13	.70000	.90000	371 00	.2027-02	.2457-02	.2457-02	.9000	.3527-04	.4274-04	.2499-01	.1932	531.0
13	.80000	.50000-01	372 00	.1899-02	.2319-02	.2319-02	.9000	.3304-04	.4034-04	.2262-01	.1728	555 1
13	.80000	.10000+00	373 00	.2903-01	.3520-01	.3520-01	.9000	.5049-03	.6123-03	.3568	2.729	532.9
13	.80000	.40000	374 00	.1145-01	.1388-01	.1388-01	.9000	.1992-03	.2414-03	.1413	1.023	530.2
13	.80000	.50000	375 00	.9785-02	.1186-01	.1186-01	.9000	.1702-03	.2062-03	.1208	.8339	530 0
13	.80000	.70000	376 00	.7884-02	.9551-02	.9551-02	.9000	.1371-03	.1661-03	.9740-01	.7808	529.4
13	.80000	.90000	377 00	.8462-02	.1025-01	.1025-01	.9000	.1472-03	.1783-03	.1046	.8098	529.0
13	.90000	.10000+00	378 00	.4066-01	.4933-01	.4933-01	.9000	.7072-03	.8580-03	.4990	3.604	534 1
13	.90000	.30000	379 00	.1819-01	.2205-01	.2205-01	.9000	.3164-03	.3835-03	.2244	1.650	530 6
13	.90000	.50000	380 00	.1305-02	.1581-02	.1581-02	.9000	.2270-04	.2750-04	.1615-01	.1133	528 4
13	.90000	.70000	381 00	.9545-02	.1156-01	.1156-01	.9000	.1660-03	.2011-03	.1180	.8604	528 7
13	.90000	.90000	382 00	.1189-01	.1440-01	.1440-01	.9000	.2068-03	.2505-03	.1470	1.108	528.8
13	.95000	.30000	383 00	.2036-01	.2467-01	.2467-01	.9000	.3541-03	.4291-03	.2510	1.799	530.7
13	.95000	.50000	384 00	.1462-01	.1771-01	.1771-01	.9000	.2543-03	.3080-03	.1805	1.286	529 7
13	.95000	.90000	385 00	.1477-01	.1789-01	.1789-01	.9000	.2569-03	.3111-03	.1825	1.242	529.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2679

## OH84B 60-0 VERTICAL TAIL

(R4UT14)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
60	2.004	7.980	34.98	.7044-03	434.5	1300.	94.62	.4523-01	2.016	3805.	.1290-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
60	.3501-01	.2868-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
60	.10000+00	.10000+00	340.00	.2322-01	.2795-01	.2795-01	.9000	.8128-03	.9786-03	.6236	4.436	532.5
60	.10000+00	.30000	341.00	.1314-01	.1582-01	.1582-01	.9000	.4602-03	.5538-03	.3539	2.603	530.7
60	.10000+00	.50000	342.00	.8943-02	.1076-01	.1076-01	.9000	.3131-03	.3767-03	.2410	1.833	529.9
60	.20000	.10000+00	343.00	.1884-01	.2268-01	.2268-01	.9000	.6598-03	.7939-03	.5075	3.672	530.5
60	.20000	.20000	344.00	.9875-02	.1188-01	.1188-01	.9000	.3458-03	.4159-03	.2668	1.982	528.7
60	.20000	.40000	345.00	.5943-02	.7146-02	.7146-02	.9000	.2081-03	.2502-03	.1607	1.153	527.5
60	.20000	.60000	346.00	.3250-02	.3907-02	.3907-02	.9000	.1138-03	.1368-03	.8799-01	.6380	526.5
60	.20000	.80000	347.00	.1612-02	.1937-02	.1937-02	.9000	.5644-04	.6781-04	.4374-01	.3124	524.7
60	.30000	.50000-01	348.00	.1915-01	.2305-01	.2305-01	.9000	.6705-03	.8072-03	.5147	3.884	532.1
60	.30000	.20000	349.00	.6715-02	.8074-02	.8074-02	.9000	.2351-03	.2827-03	.1815	1.316	527.5
60	.30000	.40000	350.00	.3940-02	.4736-02	.4736-02	.9000	.1379-03	.1658-03	.1066	.7728	526.9
60	.30000	.50000	351.00	.3228-02	.3879-02	.3879-02	.9000	.1130-03	.1358-03	.8741-01	.6179	526.2
60	.30000	.90000	352.00	.1757-02	.2111-02	.2111-02	.9000	.6151-04	.7391-04	.4765-01	.3573	524.9
60	.40000	.10000+00	353.00	.1340-01	.1612-01	.1612-01	.9000	.4692-03	.5644-03	.3618	2.663	528.7
60	.40000	.20000	354.00	.9717-02	.1169-01	.1169-01	.9000	.3402-03	.4092-03	.2623	1.870	528.7
60	.40000	.50000	356.00	.4266-02	.5129-02	.5129-02	.9000	.1494-03	.1796-03	.1154	.8418	527.2
60	.40000	.90000	358.00	.2782-02	.3343-02	.3343-02	.9000	.9739-04	.1170-03	.7539-01	.5689	525.6
60	.50000	.50000-01	359.00	.3073-01	.3704-01	.3704-01	.9000	.1076-02	.1297-02	.8213	6.445	536.3
60	.50000	.70000	360.00	.4784-02	.5752-02	.5752-02	.9000	.1675-03	.2014-03	.1294	1.038	527.2
60	.50000	.90000	361.00	.4243-02	.5101-02	.5101-02	.9000	.1486-03	.1786-03	.1148	.8192	526.8
60	.60000	.50000-01	362.00	.5316-01	.6414-01	.6414-01	.9000	.1861-02	.2246-02	1.413	10.87	540.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT14)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
60	.60000	.10000+00	363.00	4680-01	.5641-01	.5641-01	.9000	.1639-02	.1975-02	1.250	9.474	536.8
60	.60000	.20000	364.00	3602-01	.4340-01	.4340-01	.9000	.1261-02	.1520-02	.9628	7.108	536.1
60	.60000	.40000	365.00	3394-01	.4087-01	.4087-01	.9000	.1188-02	.1431-02	.9105	6.413	533.5
60	.60000	.50000	366.00	.3244-01	.3907-01	.3907-01	.9000	.1136-02	.1368-02	.8701	6.187	533.6
60	.60000	.70000	367.00	.1547-01	.1862-01	.1862-01	.9000	.5417-03	.6518-03	.4168	3.340	530.2
60	.60000	.90000	368.00	.1308-01	.1572-01	.1572-01	.9000	.4578-03	.5504-03	.3535	2.647	527.5
60	.70000	.50000-01	369.00	.5370-01	.6482-01	.6482-01	.9000	.1880-02	.2269-02	1.425	11.55	542.0
60	.70000	.70000	370.00	.1796-01	.2161-01	.2161-01	.9000	.6287-03	.7566-03	.4835	3.943	530.7
60	.70000	.90000	371.00	.6206-02	.7469-02	.7469-02	.9000	.2173-03	.2615-03	.1670	1.291	531.3
60	.80000	.50000-01	372.00	.1348-03	.1671-03	.1671-03	.9000	.4721-05	.5850-05	.3180-02	.2345-01	626.2
60	.80000	.10000+00	373.00	.4353-01	.5247-01	.5247-01	.9000	.1524-02	.1837-02	1.163	8.878	536.5
60	.80000	.40000	374.00	.3366-01	.4055-01	.4055-01	.9000	.1178-02	.1420-02	.9012	6.506	534.9
60	.80000	.50000	375.00	.2857-01	.3440-01	.3440-01	.9000	.1000-02	.1205-02	.7669	5.286	533.1
60	.80000	.70000	376.00	.1644-01	.1978-01	.1978-01	.9000	.5756-03	.6925-03	.4429	3.549	530.1
60	.80000	.90000	377.00	.1473-01	.1771-01	.1771-01	.9000	.5155-03	.6200-03	.3977	3.080	528.2
60	.90000	.10000+00	378.00	.4441-01	.5353-01	.5353-01	.9000	.1555-02	.1874-02	1.186	8.552	537.0
60	.90000	.30000	379.00	.2607-01	.3138-01	.3138-01	.9000	.9126-03	.1099-02	.7005	5.148	532.1
60	.90000	.50000	380.00	.1919-02	.2306-02	.2306-02	.9000	.6719-04	.8075-04	.5200-01	.3654	525.7
60	.90000	.70000	381.00	.1303-01	.1567-01	.1567-01	.9000	.4563-03	.5487-03	.3522	2.569	527.8
60	.90000	.90000	382.00	.1478-01	.1778-01	.1778-01	.9000	.5175-03	.6224-03	.3993	3.010	528.1
60	.95000	.30000	383.00	.2384-01	.2870-01	.2870-01	.9000	.8348-03	.1005-02	.6413	4.594	531.5
60	.95000	.50000	384.00	.2288-01	.2754-01	.2754-01	.9000	.8012-03	.9644-03	.6156	4.382	531.3
60	.95000	.90000	385.00	.1638-01	.1969-01	.1969-01	.9000	.5734-03	.6895-03	.4424	3.011	528.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2681

OH84B 60-0 VERTICAL TAIL

(R4UT14)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 0000    SPDBPK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
79	3.047	7.990	35.01	-6.951-03	670 5	1310.	95.12	.6924-01	3 094	3820.	.1965-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	SIN NO REF(R) =.0175
79	.4343-01	.2326-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
79	.10000+00	.10000+00	340.00	.2305-01	.2774-01	.2774-01	.9000	.1001-02	.1205-02	.7759	5.513	534.7
79	.10000+00	.30000	341.00	.1313-01	.1579-01	.1579-01	.9000	.5703-03	.6858-03	.4431	3.255	532.6
79	.10000+00	.50000	342.00	.7373-02	.8862-02	.8862-02	.9000	.3202-03	.3849-03	.2496	1.898	530.3
79	.20000	.10000+00	343.00	.1710-01	.2056-01	.2056-01	.9000	.7427-03	.8928-03	.5786	4.187	530.6
79	.20000	.20000	344 00	.9924-02	.1193-01	.1193-01	.9000	.4310-03	.5179-03	.3364	2.500	529 3
79	.20000	.40000	345 00	.6302-02	.7571-02	.7571-02	.9000	.2737-03	.3288-03	.2139	1.535	528 2
79	.20000	.60000	346 00	.3200-02	.3842-02	.3842-02	.9000	.1390-03	.1669-03	.1088	.7891	526 5
79	.20000	.80000	347 00	.1456-02	.1747-02	.1747-02	.9000	.6323-04	.7588-04	.4965-01	.3546	524.5
79	.30000	.50000-01	348 00	.1822-01	.2192-01	.2192-01	.9000	.7913-03	.9519-03	.6145	4 635	533 1
79	.30000	.20000	349 00	.7997-02	.9608-02	.9608-02	.9000	.3473-03	.4173-03	.2713	1.965	528.5
79	.30000	.40000	350 00	.5089-02	.6112-02	.6112-02	.9000	.2210-03	.2654-03	.1730	1.254	526 9
79	.30000	.50000	351 00	.4222-02	.5069-02	.5069-02	.9000	.1833-03	.2201-03	.1437	1.016	526.2
79	.30000	.90000	352 00	.2016-02	.2419-02	.2419-02	.9000	.8754-04	.1051-03	.6871-01	.5152	524 8
79	.40000	.10000+00	353 00	.1565-01	.1881-01	.1881-01	.9000	.6797-03	.8169-03	.5299	3.899	530.0
79	.40000	.20000	354 00	.1280-01	.1539-01	.1539-01	.9000	.5560-03	.6682-03	.4338	3 091	529 5
79	.40000	.50000	355 00	.7970-02	.9574-02	.9574-02	.9000	.3461-03	.4158-03	.2706	1.973	528 0
79	.40000	.90000	358 00	.2991-02	.3591-02	.3591-02	.9000	.1299-03	.1559-03	.1019	.7687	525 5
79	.50000	.50000-01	359 00	.3730-01	.4493-01	.4493-01	.9000	.1620-02	.1952-02	1.248	9.781	539 1
79	.50000	.70000	360 00	.8277-02	.9941-02	.9941-02	.9000	.3595-03	.4317-03	.2812	2.257	527 4
79	.50000	.90000	361 00	.5737-02	.6889-02	.6889-02	.9000	.2491-03	.2992-03	.1950	1.391	526 9
79	.60000	.50000-01	362 00	.5026-01	.6061-01	.6061-01	.9000	.2183-02	.2632-02	1.674	12.87	542 7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT14)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
79	.60000	.10000+00	363.00	.4271-01	.5142-01	.5142-01	.9000	.1855-02	.2233-02	1.434	10.87	536.6
79	.60000	.20000	364 00	.3785-01	.4558-01	.4558-01	.9000	.1644-02	.1979-02	1.269	9.363	537.5
79	.60000	.40000	365 00	.3681-01	.4430-01	.4430-01	.9000	.1599-02	.1924-02	1.238	8.717	535.0
79	.60000	.50000	366 00	.3301-01	.3973-01	.3973-01	.9000	.1434-02	.1725-02	1.110	7.885	535.3
79	.60000	.70000	367 00	.1692-01	.2034-01	.2034-01	.9000	.7349-03	.8835-03	.5723	4.584	530.9
79	.60000	.90000	368 00	.1412-01	.1696-01	.1696-01	.9000	.6130-03	.7365-03	.4790	3.585	528.4
79	.70000	.50000-01	369 00	.4995-01	.6026-01	.6026-01	.9000	.2169-02	.2617-02	1.660	13.45	544.4
79	.70000	.70000	370 00	.1775-01	.2133-01	.2133-01	.9000	.7707-03	.9266-03	.6002	4.894	531.0
79	.70000	.90000	371 00	.6885-02	.8278-02	.8278-02	.9000	.2990-03	.3595-03	.2326	1.798	531.7
79	.80000	.10000+00	373.00	.4140-01	.4987-01	.4987-01	.9000	.1798-02	.2166-02	1.387	10.58	538.2
79	.80000	.40000	374 00	.3097-01	.3728-01	.3728-01	.9000	.1345-02	.1619-02	1.041	7.512	537.8
79	.80000	.50000	375 00	.2577-01	.3100-01	.3100-01	.9000	.1119-02	.1346-02	.8684	5.984	533.7
79	.80000	.70000	376 00	.1672-01	.2009-01	.2009-01	.9000	.7260-03	.8727-03	.5656	4.531	530.5
79	.80000	.90000	377 00	.1526-01	.1834-01	.1834-01	.9000	.6629-03	.7966-03	.5174	4.005	529.2
79	.90000	.10000+00	378 00	.4629-01	.5578-01	.5578-01	.9000	.2010-02	.2423-02	1.547	11.14	540.1
79	.90000	.30000	379 00	.2515-01	.3025-01	.3025-01	.9000	.1092-02	.1314-02	.8480	6.228	533.2
79	.90000	.50000	380 00	.2802-02	.3364-02	.3364-02	.9000	.1217-03	.1461-03	.9541-01	.6705	525.7
79	.90000	.70000	381 00	.1193-01	.1433-01	.1433-01	.9000	.5181-03	.6223-03	.4051	2.955	527.7
79	.90000	.90000	382 00	.1405-01	.1688-01	.1688-01	.9000	.6101-03	.7329-03	.4766	3.592	528.4
79	.95000	.30000	383 00	.2342-01	.2817-01	.2817-01	.9000	.1017-02	.1223-02	.7902	5.657	532.8
79	.95000	.50000	384 00	.2137-01	.2570-01	.2570-01	.9000	.9280-03	.1116-02	.7215	5.134	532.2
79	.95000	.90000	385 00	.1607-01	.1930-01	.1930-01	.9000	.6977-03	.8383-03	.5450	3.709	528.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2683

## OH84B 60-0 VERTICAL TAIL

(R4UT14)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
132	3.694	8.000	35 03	.6883-03	854.1	1351.	97.87	.8749-01	3.919	3880.	.2413-02	.7876-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
132	4914-01	.2106-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
132	.10000+00	.10000+00	340.00	.2340-01	.2806-01	.2806-01	.9000	.1150-02	.1379-02	.9345	6.630	537.9
132	.10000+00	.30000	341.00	.1323-01	.1585-01	.1585-01	.9000	.6499-03	.7790-03	.5300	3.888	535.3
132	.10000+00	.50000	342.00	.7328-02	.8776-02	.8776-02	.9000	.3601-03	.4313-03	.2947	2.239	532.2
132	.20000	.10000+00	343.00	.1657-01	.1985-01	.1985-01	.9000	.8142-03	.9755-03	.6650	4.804	533.9
132	.20000	.20000	344.00	.1021-01	.1223-01	.1223-01	.9000	.5017-03	.6008-03	.4105	3.046	532.4
132	.20000	.40000	345.00	.6543-02	.7833-02	.7833-02	.9000	.3215-03	.3849-03	.2636	1.889	530.8
132	.20000	.60000	346.00	.3182-02	.3807-02	.3807-02	.9000	.1563-03	.1871-03	.1285	.9307	528.7
132	.20000	.80000	347.00	.1706-02	.2040-02	.2040-02	.9000	.8383-04	.1003-03	.6907-01	.4928	526.7
132	.30000	.50000-01	348.00	.1783-01	.2137-01	.2137-01	.9000	.8761-03	.1050-02	.7141	5.379	535.6
132	.30000	.20000	349.00	.8103-02	.9700-02	.9700-02	.9000	.3982-03	.4767-03	.3266	2.363	530.5
132	.30000	.40000	350.00	.5787-02	.6926-02	.6926-02	.9000	.2844-03	.3404-03	.2336	1.691	529.4
132	.30000	.50000	351.00	.4916-02	.5882-02	.5882-02	.9000	.2416-03	.2891-03	.1986	1.402	528.6
132	.30000	.90000	352.00	.2327-02	.2783-02	.2783-02	.9000	.1143-03	.1368-03	.9417-01	.7053	527.1
132	.40000	.10000+00	353.00	.1606-01	.1923-01	.1923-01	.9000	.7891-03	.9450-03	.6459	4.746	532.2
132	.40000	.20000	354.00	.1380-01	.1652-01	.1652-01	.9000	.6779-03	.8119-03	.5549	3.948	532.2
132	.40000	.50000	356.00	.9120-02	.1092-01	.1092-01	.9000	.4482-03	.5365-03	.3677	2.678	530.3
132	.40000	.90000	358.00	.3314-02	.3964-02	.3964-02	.9000	.1628-03	.1948-03	.1341	1.011	527.4
132	.50000	.50000-01	359.00	.3625-01	.4352-01	.4352-01	.9000	.1781-02	.2139-02	.1440	11.27	542.2
132	.50000	.70000	360.00	.7876-02	.9428-02	.9428-02	.9000	.3870-03	.4633-03	.3174	2.543	530.5
132	.50000	.90000	361.00	.6327-02	.7572-02	.7572-02	.9000	.3109-03	.3721-03	.2554	1.820	529.2
132	.60000	.50000-01	362.00	.4593-01	.5518-01	.5518-01	.9000	.2257-02	.2712-02	.1819	13.96	545.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT14)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0 TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(1AW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
132	.60000	.10000+00	363.00	3798-01	.4557-01	.4557-01	.9000	.1867-02	.2239-02	1.514	11.46	539.4
132	.60000	.20000	364.00	.3488-01	.4186-01	.4186-01	.9000	.1714-02	.2057-02	1.390	10.24	539.9
132	.60000	.40000	365.00	.3422-01	.4104-01	.4104-01	.9000	.1682-02	.2017-02	1.368	9.614	537.4
132	.60000	.50000	366.00	.3114-01	.3734-01	.3734-01	.9000	.1530-02	.1835-02	1.245	8.840	536.9
132	.60000	.70000	367.00	.1604-01	.1922-01	.1922-01	.9000	.7883-03	.9444-03	.6443	5.154	533.4
132	.60000	.90000	368.00	.1369-01	.1638-01	.1638-01	.9000	.6725-03	.8051-03	.5519	4.127	530.1
132	.70000	.50000-01	369.00	.4602-01	.5533-01	.5533-01	.9000	.2262-02	.2719-02	1.817	14.69	547.4
132	.70000	.70000	370.00	.1709-01	.2048-01	.2048-01	.9000	.8400-03	.1006-02	.6865	5.591	533.5
132	.70000	.90000	371.00	.5139-02	.6157-02	.6157-02	.9000	.2526-03	.3026-03	.2064	1.594	533.3
132	.80000	.50000-01	372.00	.1908-02	.2474-02	.2474-02	.9000	.9375-04	.1216-03	.5535-01	.3833	760.2
132	.80000	.10000+00	373.00	.4009-01	.4812-01	.4812-01	.9000	.1970-02	.2365-02	1.595	12.14	541.3
132	.80000	.40000	374.00	.2991-01	.3587-01	.3587-01	.9000	.1470-02	.1763-02	1.195	8.615	537.8
132	.80000	.50000	375.00	.2615-01	.3136-01	.3136-01	.9000	.1285-02	.1541-02	1.046	7.196	536.8
132	.80000	.70000	376.00	.1698-01	.2034-01	.2034-01	.9000	.8343-03	.9994-03	.6820	5.457	533.2
132	.80000	.90000	377.00	.1548-01	.1853-01	.1853-01	.9000	.7605-03	.9106-03	.6232	4.819	531.2
132	.90000	.10000+00	378.00	.4865-01	.5603-01	.5603-01	.9000	.2292-02	.2753-02	1.849	13.29	544.0
132	.90000	.30000	379.00	.2517-01	.3017-01	.3017-01	.9000	.1237-02	.1483-02	1.007	7.383	536.6
132	.90000	.50000	380.00	.3178-02	.3802-02	.3802-02	.9000	.1562-03	.1868-03	.1284	.9014	528.2
132	.90000	.70000	381.00	.1123-01	.1344-01	.1344-01	.9000	.5519-03	.6605-03	.4531	3.301	529.6
132	.90000	.90000	382.00	.1198-01	.1435-01	.1435-01	.9000	.5890-03	.7051-03	.4830	3.636	530.5
132	.95000	.30000	383.00	.2372-01	.2843-01	.2843-01	.9000	.1166-02	.1397-02	.9499	6.789	535.8
132	.95000	.50000	384.00	.2138-01	.2562-01	.2562-01	.9000	.1051-02	.1259-02	.8572	6.091	534.9
132	.95000	.90000	385.00	.1441-01	.1724-01	.1724-01	.9000	.7079-03	.8474-03	.5809	3.949	530.1



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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O VERTICAL TAIL

(R4UT15)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -10.00 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
201	.4945	7.900	39.95	-10.05	100.2	1266.	93.88	.1114-01	.4867	3752.	.3203-03	.7554-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
201	.1712-01	.5741-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
201	.10000+00	.10000+00	340.00	.1606-01	.1939-01	.1939-01	.9000	.2749-03	3320-03	.2024	1.442	529.4
201	.10000+00	.30000	341 00	.1745-01	.2107-01	.2107-01	.9000	.2988-03	3608-03	.2200	1.619	529.4
201	.10000+00	.50000	342.00	.6286-02	.7588-02	.7588-02	.9000	.1076-03	.1299-03	7943-01	.6048	527.7
201	.20000	.10000+00	343.00	.1053-01	.1271-01	.1271-01	.9000	.1803-03	.2176-03	.1330	.9637	527.9
201	.20000	.20000	344.00	.1331-01	.1606-01	.1606-01	.9000	.2278-03	.2751-03	.1680	1.249	528.3
201	.20000	.40000	345 00	.2817-01	.3403-01	.3403-01	.9000	.4824-03	.5827-03	.3547	2.542	530.4
201	.20000	.60000	346 00	.1025-01	.1237-01	.1237-01	.9000	.1755-03	.2119-03	.1293	.9363	528.9
201	.20000	.80000	347 00	.1560-02	.1883-02	.1883-02	.9000	.2671-04	.3224-04	1973-01	.1408	527.0
201	.30000	.50000-01	348 00	.4611-01	.5575-01	.5575-01	.9000	.7896-03	.9546-03	.5781	4.359	533.5
201	.30000	.20000	349.00	.4739-01	.5728-01	.5728-01	.9000	.8114-03	.9807-03	.5948	4.299	532.6
201	.30000	.40000	350 00	.4181-01	.5053-01	.5053-01	.9000	.7159-03	.8653-03	.5247	3.793	532.6
201	.30000	.50000	351 00	.3760-01	.4544-01	.4544-01	.9000	.6438-03	.7781-03	.4719	3.325	532.6
201	.30000	.90000	352 00	.5798-02	.7000-02	.7000-02	.9000	.9928-04	.1199-03	7318-01	.5477	528.6
201	.40000	.10000+00	353.00	.5400-01	.6529-01	.6529-01	.9000	.9247-03	.1118-02	.6769	4.971	533.6
201	.40000	.20000	354.00	.7125-01	.8622-01	.8622-01	.9000	.1220-02	.1476-02	.8897	6.317	536.4
201	.40000	.50000	356 00	.3498-01	.4228-01	.4228-01	.9000	.5990-03	.7240-03	.4389	3.193	532.9
201	.40000	.90000	358 00	.1553-01	.1876-01	.1876-01	.9000	.2659-03	.3213-03	.1955	1.471	530.6
201	.50000	.50000-01	359.00	.4330-01	.5240-01	.5240-01	.9000	.7415-03	.8972-03	.5407	4.243	536.4
201	.50000	.70000	360 00	.1188-01	.1435-01	.1435-01	.9000	.2034-03	.2457-03	.1494	1.197	530.9
201	.50000	.90000	361 00	.1144-01	.1382-01	.1382-01	.9000	.1959-03	.2366-03	.1440	1.025	530.6
201	.60000	.50000-01	362 00	.3492-01	.4225-01	.4225-01	.9000	.5979-03	.7234-03	.4360	3.363	536.3

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-O VERTICAL TAIL

(R4UT15)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
201	.60000	.10000+00	363.00	.3892-01	.4709-01	.4709-01	.9000	.6665-03	.8063-03	.4866	3.690	535.6
201	.60000	.20000	364.00	.5099-01	.6170-01	.6170-01	.9000	.8731-03	.1056-02	.6366	4.699	536.5
201	.60000	.40000	365.00	.4601-01	.5563-01	.5563-01	.9000	.7879-03	.9526-03	.5765	4.060	533.9
201	.60000	.50000	366.00	.3097-01	.3743-01	.3743-01	.9000	.5303-03	.6409-03	.3888	2.766	532.5
201	.60000	.70000	367.00	.1227-01	.1482-01	.1482-01	.9000	.2100-03	.2537-03	.1544	1.237	530.7
201	.60000	.90000	368.00	.1100-01	.1329-01	.1329-01	.9000	.1884-03	.2275-03	.1387	1.037	529.6
201	.70000	.50000-01	369.00	.3023-01	.3657-01	.3657-01	.9000	.5177-03	.6263-03	.3778	3.074	535.8
201	.70000	.70000	370.00	.1423-01	.1719-01	.1719-01	.9000	.2436-03	.2944-03	.1789	1.458	531.5
201	.70000	.90000	371.00	.3658-02	.4419-02	.4419-02	.9000	.6263-04	.7567-04	.4600-01	.3557	531.2
201	.80000	.10000+00	373.00	.3236-01	.3914-01	.3914-01	.9000	.5541-03	.6702-03	.4049	3.092	535.0
201	.80000	.40000	374.00	.5758-01	.6969-01	.6969-01	.9000	.9859-03	.1193-02	.7176	5.174	537.8
201	.80000	.50000	375.00	.4970-01	.6013-01	.6013-01	.9000	.8510-03	.1030-02	.6211	4.275	535.8
201	.80000	.70000	376.00	.2088-01	.2524-01	.2524-01	.9000	.3576-03	.4322-03	.2621	2.098	532.6
201	.80000	.90000	377.00	.1585-01	.1915-01	.1915-01	.9000	.2714-03	.3280-03	.1992	1.540	531.7
201	.90000	.10000+00	378.00	.3316-01	.4011-01	.4011-01	.9000	.5677-03	.6868-03	.4144	2.991	535.7
201	.90000	.30000	379.00	.3107-01	.3757-01	.3757-01	.9000	.5319-03	.6432-03	.3891	2.856	534.2
201	.90000	.50000	380.00	.1886-01	.2279-01	.2279-01	.9000	.3230-03	.3903-03	.2372	1.662	531.2
201	.90000	.70000	381.00	.2618-01	.3165-01	.3165-01	.9000	.4483-03	.5419-03	.3286	2.391	532.7
201	.90000	.90000	382.00	.1934-01	.2337-01	.2337-01	.9000	.3311-03	.4002-03	.2427	1.825	532.8
201	.95000	.30000	383.00	.2535-01	.3065-01	.3065-01	.9000	.4341-03	.5247-03	.3180	2.276	533.2
201	.95000	.50000	384.00	.4064-01	.4917-01	.4917-01	.9000	.6959-03	.8419-03	.5077	3.605	536.1
201	.95000	.90000	385.00	.2543-01	.3074-01	.3074-01	.9000	.4355-03	.5263-03	.3193	2.168	532.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT15)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
188	1.010	7.940	39.95	-10.05	204.4	1253	92.05	.2199-01	.9703	3734	.6447-03	.7407-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
188	.2413-01	.4042-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/R FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
188	.10000+00	.10000+00	340.00	.2116-01	.2557-01	.2557-01	.9000	.5106-03	.6170-03	.3708	2.646	526.5
188	.10000+00	.30000	341.00	.1282-01	.1548-01	.1548-01	.9000	.3093-03	.3737-03	.2250	1.659	525.4
188	.10000+00	.50000	342.00	.5969-02	.7207-02	.7207-02	.9000	.1441-03	.1739-03	.1051	.8019	523.3
188	.20000	.10000+00	343.00	.1155-01	.1395-01	.1395-01	.9000	.2787-03	.3365-03	.2033	1.476	523.4
188	.20000	.20000	344.00	.1473-01	.1779-01	.1779-01	.9000	.3554-03	.4293-03	.2588	1.928	524.5
188	.20000	.40000	345.00	.2848-01	.3441-01	.3441-01	.9000	.6874-03	.8305-03	.4997	3.590	525.8
188	.20000	.60000	346.00	.1022-01	.1234-01	.1234-01	.9000	.2467-03	.2978-03	.1801	1.309	522.5
188	.20000	.80000	347.00	.1205-02	.1453-02	.1453-02	.9000	.2908-04	.3508-04	.2131-01	.1525	520.0
188	.30000	.50000-01	348.00	.2006-01	.2424-01	.2424-01	.9000	.4841-03	.5850-03	.3519	2.664	525.8
188	.30000	.20000	349.00	.6449-01	.7802-01	.7802-01	.9000	.1556-02	.1883-02	1.124	8.133	530.5
188	.30000	.40000	350.00	.6701-01	.8108-01	.8108-01	.9000	.1617-02	.1957-02	1.168	8.450	530.6
188	.30000	.50000	351.00	.5408-01	.6542-01	.6542-01	.9000	.1305-02	.1579-02	.9431	6.654	530.1
188	.30000	.90000	352.00	.6403-02	.7726-02	.7726-02	.9000	.1545-03	.1865-03	.1130	8.489	521.3
188	.40000	.10000+00	353.00	.5246-01	.6344-01	.6344-01	.9000	.1266-02	.1531-02	.9161	6.742	529.1
188	.40000	.20000	354.00	.5736-01	.6940-01	.6940-01	.9000	.1384-02	.1675-02	.9996	7.118	530.6
188	.40000	.50000	355.00	.2995-01	.3620-01	.3620-01	.9000	.7231-03	.8737-03	.5254	3.835	526.1
188	.40000	.90000	358.00	.1612-01	.1946-01	.1946-01	.9000	.3889-03	.4696-03	.2837	2.143	523.2
188	.50000	.50000-01	359.00	.7592-01	.9200-01	.9200-01	.9000	.1832-02	.2220-02	1.313	10.30	536.1
188	.50000	.70000	360.00	.8377-02	.1011-01	.1011-01	.9000	.2021-03	.2440-03	.1476	1.187	522.6
188	.50000	.90000	361.00	.8266-02	.9977-02	.9977-02	.9000	.1995-03	.2408-03	.1457	1.042	522.2
188	.60000	.50000-01	362.00	.6511-01	.7886-01	.7886-01	.9000	.1571-02	.1903-02	1.129	8.716	534.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT15)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
188	.60000	.10000+00	363.00	.6412-01	.7761-01	.7761-01	.9000	.1547-02	.1873-02	1.115	8.468	532.3
188	.60000	.20000	364.00	.5022-01	.6076-01	.6076-01	.9000	.1212-02	.1466-02	.8750	6.477	530.7
188	.60000	.40000	365.00	.3296-01	.3982-01	.3982-01	.9000	.7954-03	.9610-03	.5782	4.089	525.7
188	.60000	.50000	366.00	.2412-01	.2913-01	.2913-01	.9000	.5820-03	.7029-03	.4238	3.027	524.4
188	.60000	.70000	367.00	.9635-02	.1163-01	.1163-01	.9000	.2325-03	.2807-03	.1698	1.366	522.2
188	.60000	.90000	368.00	.8521-02	.1028-01	.1028-01	.9000	.2056-03	.2481-03	.1505	1.131	520.9
188	.70000	.50000-01	369.00	.5313-01	.6435-01	.6435-01	.9000	.1282-02	.1553-02	.9214	7.502	534.1
188	.70000	.70000	370.00	.1282-01	.1548-01	.1548-01	.9000	.3094-03	.3735-03	.2257	1.848	523.1
188	.70000	.90000	371.00	.3469-02	.4194-02	.4194-02	.9000	.8371-04	.1012-03	.6060-01	.4692	528.7
188	.80000	.50000-01	372.00	.1869-02	.2336-02	.2336-02	.9000	.4511-04	.5637-04	.2828-01	.2086	625.7
188	.80000	.10000+00	373.00	.5671-01	.6864-01	.6864-01	.9000	.1369-02	.1657-02	.9861	7.544	532.1
188	.80000	.40000	374.00	.3731-01	.4510-01	.4510-01	.9000	.9004-03	.1088-02	.6530	4.732	527.5
188	.80000	.50000	375.00	.2809-01	.3394-01	.3394-01	.9000	.6780-03	.8191-03	.4927	3.409	525.9
188	.80000	.70000	376.00	.1648-01	.1990-01	.1990-01	.9000	.3978-03	.4803-03	.2900	2.331	523.7
188	.80000	.90000	377.00	.1413-01	.1706-01	.1706-01	.9000	.3409-03	.4116-03	.2488	1.932	522.9
188	.90000	.10000+00	378.00	.5420-01	.6560-01	.6560-01	.9000	.1308-02	.1583-02	.9431	6.820	531.7
188	.90000	.30000	379.00	.4382-01	.5298-01	.5298-01	.9000	.1058-02	.1279-02	.7660	5.640	528.3
188	.90000	.50000	380.00	.1950-01	.2355-01	.2355-01	.9000	.4706-03	.5683-03	.3431	2.413	523.7
188	.90000	.70000	381.00	.1545-01	.1865-01	.1865-01	.9000	.3729-03	.4501-03	.2721	1.990	522.9
188	.90000	.90000	382.00	.1424-01	.1719-01	.1719-01	.9000	.3436-03	.4149-03	.2507	1.894	523.1
188	.95000	.30000	383.00	.4154-01	.5022-01	.5022-01	.9000	.1003-02	.1212-02	.7266	5.215	527.9
188	.95000	.50000	384.00	.3216-01	.3887-01	.3887-01	.9000	.7762-03	.9381-03	.5635	4.020	526.7
188	.95000	.90000	385.00	.1718-01	.2074-01	.2074-01	.9000	.4146-03	.5005-03	.3027	2.066	522.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2689

OH84B 60-0 VERTICAL TAIL

(R4UT15)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
 BOFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
170	1.999	7.980	39.98	-10.08	434.3	1302	94.76	.4522-01	2.016	3808.	.1288-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
170	3501-01	2872-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
170	.10000+00	.10000+00	340.00	.2185-01	.2632-01	.2632-01	.9000	.7649-03	.9214-03	.5862	4.164	535.4
170	.10000+00	30000	341.00	.2268-01	.2733-01	.2733-01	.9000	.7942-03	.9569-03	.6082	4.461	535.9
170	.10000+00	.50000	342.00	.8307-02	.9996-02	.9996-02	.9000	.2909-03	.3500-03	.2241	1.704	531.1
170	.20000	.10000+00	343.00	.1869-01	.2251-01	.2251-01	.9000	.6546-03	.7881-03	.5030	3.635	533.3
170	.20000	20000	344.00	.2832-01	.3412-01	.3412-01	.9000	.9917-03	.1195-02	.7595	5.627	535.8
170	.20000	40000	345.00	.4112-01	.4956-01	.4956-01	.9000	.1440-02	.1735-02	1.100	7.850	537.9
170	.20000	60000	346.00	.1212-01	.1458-01	.1458-01	.9000	.4243-03	.5104-03	.3275	2.370	529.9
170	.20000	80000	347.00	.3216-02	.3866-02	.3866-02	.9000	.1126-03	.1354-03	.8724-01	.6224	527.0
170	.30000	50000-01	348.00	.4589-01	.5535-01	.5535-01	.9000	.1607-02	.1938-02	1.224	9.202	539.8
170	.30000	20000	349.00	.7834-01	.9464-01	.9464-01	.9000	.2743-02	.3314-02	2.074	14.89	545.6
170	.30000	40000	350.00	.5756-01	.6943-01	.6943-01	.9000	.2015-02	.2431-02	1.534	11.05	540.3
170	.30000	50000	351.00	.4553-01	.5488-01	.5488-01	.9000	.1594-02	.1922-02	1.217	8.554	538.1
170	.30000	90000	352.00	.6158-02	.7402-02	.7402-02	.9000	.2156-03	.2592-03	.1669	1.250	527.4
170	.40000	10000+00	353.00	.6830-01	.8243-01	.8243-01	.9000	.2392-02	.2886-02	1.816	13.27	542.4
170	.40000	20000	354.00	.6695-01	.8083-01	.8083-01	.9000	.2344-02	.2830-02	1.777	12.57	543.7
170	.40000	50000	356.00	.3433-01	.4136-01	.4136-01	.9000	.1202-02	.1448-02	.9207	6.688	535.8
170	.40000	90000	358.00	.1381-01	.1661-01	.1661-01	.9000	.4835-03	.5816-03	.3730	2.808	530.3
170	.50000	50000-01	359.00	.7187-01	.8691-01	.8691-01	.9000	.2516-02	.3043-02	1.893	14.75	549.5
170	.50000	70000	360.00	.1136-01	.1367-01	.1367-01	.9000	.3979-03	.4787-03	.3069	2.459	530.4
170	.50000	.90000	361.00	.1063-01	.1279-01	.1279-01	.9000	.3722-03	.4477-03	.2873	2.047	529.8
170	.60000	.50000-01	362.00	.6684-01	.8080-01	.8080-01	.9000	.2340-02	.2829-02	1.763	13.52	548.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2690

## OH84B 60-0 VERTICAL TAIL

(R4UT15)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
170	60000	.10000+00	363 00	.6554-01	.7915-01	.7915-01	.9000	.2295-02	.2771-02	1.737	13.12	544.6
170	.60000	.20000	364 00	.4742-01	.5720-01	.5720-01	.9000	.1660-02	.2003-02	1.264	9.310	540.4
170	.60000	.40000	365 00	.3273-01	.3942-01	.3942-01	.9000	.1146-02	.1380-02	8786	6.183	535.0
170	60000	.50000	366 00	.2473-01	.2977-01	.2977-01	.9000	.8657-03	.1042-02	.6654	4.733	533.1
170	.60000	.70000	367 00	.1081-01	.1301-01	.1301-01	.9000	.3787-03	.4555-03	.2923	2.343	529.7
170	60000	.90000	368 00	.1015-01	.1220-01	.1220-01	.9000	.3552-03	.4271-03	.2748	2.057	528.1
170	70000	.50000-01	369 00	.5715-01	.6907-01	.6907-01	.9000	.2001-02	.2418-02	1.509	12.21	547.5
170	70000	.70000	370 00	.1226-01	.1475-01	.1475-01	.9000	.4294-03	.5166-03	.3312	2.702	530.4
170	.70000	.90000	371 00	.3784-02	.4555-02	.4555-02	.9000	.1325-03	.1595-03	1019	7877	532.3
170	80000	.50000-01	372 00	.2133-02	.2788-02	.2788-02	.9000	.7467-04	.9761-04	.4136-01	2881	747.7
170	.80000	.10000+00	373 00	.5736-01	.6925-01	.6925-01	.9000	.2008-02	.2425-02	1.523	11.58	543.4
170	.80000	.40000	374 00	.3625-01	.4369-01	.4369-01	.9000	.1269-02	.1530-02	.9696	6.990	537.7
170	.80000	.50000	375 00	.2733-01	.3291-01	.3291-01	.9000	.9568-03	.1152-02	.7340	5.055	534.6
170	.80000	.70000	376 00	.1586-01	.1908-01	.1908-01	.9000	.5552-03	.6682-03	.4274	3.422	531.8
170	80000	.90000	377 00	.1377-01	.1657-01	.1657-01	.9000	.4822-03	.5800-03	.3721	2.879	530.0
170	90000	.10000+00	378 00	.5433-01	.6558-01	.6558-01	.9000	.1902-02	.2296-02	1.443	10.38	542.9
170	90000	.30000	379 00	.4189-01	.5050-01	.5050-01	.9000	.1467-02	.1768-02	1.121	8.215	537.5
170	90000	.50000	380 00	.1758-01	.2116-01	.2116-01	.9000	.6156-03	.7408-03	.4741	3.322	531.5
170	90000	.70000	381 00	.1580-01	.1901-01	.1901-01	.9000	.5533-03	.6656-03	.4270	3.111	530.0
170	90000	.90000	382 00	.1725-01	.2075-01	.2075-01	.9000	.6039-03	.7267-03	.4655	3.503	530.9
170	95000	.30000	383 00	.4067-01	.4903-01	.4903-01	.9000	.1424-02	.717-02	1.087	7.758	538.5
170	95000	.50000	384 00	.3213-01	.3871-01	.3871-01	.9000	.1125-02	.355-02	.8612	6.115	536.1
170	.95000	.90000	385 00	.1892-01	.2276-01	.2276-01	.9000	.6623-03	.7968-03	.5106	3.471	530.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2691

OH84B 60-0 VERTICAL TAIL

(R4UT15)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
98	2 982	7.990	40.02	-10.11	669 7	1328.	96.43	.6916-01	3.091	3846.	.1936-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) #.0175
98	4351-01	.2347-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
98	.10000+00	.10000+00	340.00	.2156-01	.2592-01	.2592-01	.9000	.9382-03	.1128-02	.7407	5.254	538.2
98	.10000+00	.30000	341 00	.1536-01	.1846-01	.1846-01	.9000	.6684-03	.8032-03	.5286	3.875	536.8
98	.10000+00	.50000	342.00	.1005-01	.1206-01	.1206-01	.9000	.4371-03	.5248-03	.3474	2.638	533 0
98	.20000	.10000+00	343 00	.2259-01	.2714-01	.2714-01	.9000	.9827-03	.1181-02	.7785	5.619	535.5
98	.20000	.20000	344.00	.3482-01	.4188-01	.4188-01	.9000	.1515-02	.1822-02	1 194	8.828	539.6
98	.20000	.40000	345 00	.5319-01	.6402-01	.6402-01	.9000	.2314-02	.2785-02	1 817	12.94	542.6
98	.20000	.60000	346 00	.1655-01	.1986-01	.1986-01	.9000	.7199-03	.8643-03	.5722	4.135	532 9
98	.20000	.80000	347 00	.3002-02	.3600-02	.3600-02	.9000	.1306-03	.1566-03	1044	.7438	528 6
98	.30000	.50000-01	348 00	.6897-01	.8316-01	.8316-01	.9000	.3001-02	.3618-02	2.334	17.46	549 7
98	.30000	.20000	349.00	.8040-01	.9696-01	.9696-01	.9000	.3498-02	.4218-02	2 720	19.49	550 0
98	.30000	.40000	350.00	.5469-01	.6584-01	.6584-01	.9000	.2380-02	.2865-02	1 866	13 41	543 6
98	.30000	.50000	351 00	.4502-01	.5417-01	.5417-01	.9000	.1959-02	.2357-02	1 540	10 80	541 5
98	.30000	.90000	352 00	.5743-02	.6888-02	.6888-02	.9000	.2499-03	.2997-03	1995	1.493	529 1
98	.40000	.10000+00	353 00	.6940-01	.8360-01	.8360-01	.9000	.3019-02	.3637-02	2 360	17.22	546.1
98	.40000	.20000	354 00	.6605-01	.7961-01	.7961-01	.9000	.2874-02	.3464-02	2.240	15 81	548.3
98	.40000	.40000	355 00	.2802-09	.3170-09	.3170-09	.9000	.1219-10	.1379-10	.1392-07	.1202-06	185.9
98	.40000	.50000	356 00	.3295-01	.3962-01	.3962-01	.9000	.1434-02	.1724-02	1 133	8 223	537.5
98	.40000	.90000	358 00	.1213-01	.1455-01	.1455-01	.9000	.5276-03	.6332-03	4198	3.158	531 9
98	.50000	.50000-01	359.00	.7512-01	.9068-01	.9068-01	.9000	.3267-02	.3945-02	2.525	19 63	555.0
98	.50000	.70000	360 00	.1192-01	.1431-01	.1431-01	.9000	.5185-03	.6224-03	4122	3.299	532 7
98	.50000	.90000	361 00	.1145-01	.1374-01	.1374-01	.9000	.4981-03	.5978-03	3964	2 821	531 9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2692

## OH84B 60-0 VERTICAL TAIL

(R4UT15)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(10) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
98	.60000	.50000-01	362.00	.6918-01	.8349-01	.8349-01	.9000	.3010-02	.3632-02	2.332	17.83	553.0
98	.60000	.10000+00	363.00	.6463-01	.7784-01	.7784-01	.9000	.2812-02	.3387-02	2.200	16.61	545.2
98	.60000	.20000	364.00	.4857-01	.5848-01	.5848-01	.9000	.2113-02	.2544-02	1.655	12.16	544.5
98	.60000	.40000	365.00	.3341-01	.4016-01	.4016-01	.9000	.1454-02	.1747-02	1.149	8.080	537.1
98	.60000	.50000	366.00	.2637-01	.3169-01	.3169-01	.9000	.1147-02	.1379-02	.9084	6.451	536.0
98	.60000	.70000	367.00	.1112-01	.1335-01	.1335-01	.9000	.4840-03	.5809-03	.3852	3.084	531.8
98	.60000	.90000	368.00	.1029-01	.1234-01	.1234-01	.9000	.4477-03	.5370-03	.3571	2.671	529.9
98	.70000	.50000-01	369.00	.5668-01	.6840-01	.6840-01	.9000	.2466-02	.2976-02	1.911	15.42	552.6
98	.70000	.70000	370.00	.1261-01	.1514-01	.1514-01	.9000	.5487-03	.6587-03	.4363	3.555	532.5
98	.70000	.90000	371.00	.3767-02	.4523-02	.4523-02	.9000	.1639-03	.1968-03	.1303	1.006	532.9
98	.80000	.50000-01	372.00	.1702-02	.2286-02	.2286-02	.9000	.7406-04	.9947-04	.3849-01	.2609	807.9
98	.80000	.10000+00	373.00	.5709-01	.6880-01	.6880-01	.9000	.2484-02	.2993-02	1.938	14.71	547.5
98	.80000	.40000	374.00	.3684-01	.4431-01	.4431-01	.9000	.1603-02	.1928-02	1.262	9.090	540.1
98	.80000	.50000	375.00	.2770-01	.3330-01	.3330-01	.9000	.1205-02	.1449-02	.9523	6.549	537.6
98	.80000	.70000	376.00	.1603-01	.1924-01	.1924-01	.9000	.6973-03	.8373-03	.5538	4.430	533.5
98	.80000	.90000	377.00	.1401-01	.1682-01	.1682-01	.9000	.6095-03	.7316-03	.4849	3.747	532.2
98	.90000	.10000+00	378.00	.5359-01	.6457-01	.6457-01	.9000	.2332-02	.2809-02	1.821	13.07	546.8
98	.90000	.30000	379.00	.4211-01	.5066-01	.5066-01	.9000	.1832-02	.2204-02	1.442	10.55	540.5
98	.90000	.50000	380.00	.1766-01	.2120-01	.2120-01	.9000	.7684-03	.9226-03	.6104	4.272	533.3
98	.90000	.70000	381.00	.1543-01	.1852-01	.1852-01	.9000	.6715-03	.8059-03	.5345	3.891	531.6
98	.90000	.90000	382.00	.1745-01	.2095-01	.2095-01	.9000	.7593-03	.9116-03	.6036	4.539	532.7
98	.95000	.30000	383.00	.4082-01	.4910-01	.4910-01	.9000	.1776-02	.2136-02	1.398	9.965	540.7
98	.95000	.50000	384.00	.3206-01	.3855-01	.3855-01	.9000	.1395-02	.1677-02	1.100	7.797	539.1
98	.95000	.90000	385.00	.1875-01	.2251-01	.2251-01	.9000	.8157-03	.9791-03	.6490	4.408	532.1



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2693

OH84B 60-0 VERTICAL TAIL

(R4UT17)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
198	.4952	7.900	39.96	-3.985	99.19	1256.	93.14	.1102-01	.4816	3737.	.3195-03	.7495-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
198	.1701-01	.5744-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
198	.10000+00	.10000+00	340.00	.1570-01	.1898-01	.1898-01	.9000	.2670-03	.3228-03	.1942	1.384	528.6
198	.10000+00	30000	341.00	.3931-02	.4748-02	.4748-02	.9000	.6686-04	.8075-04	.4880-01	.3597	525.8
198	.10000+00	.50000	342.00	.1469-02	.1773-02	.1773-02	.9000	.2498-04	.3016-04	.1827-01	.1393	524.5
198	.20000	.10000+00	343.00	.8254-02	.9974-02	.9974-02	.9000	.1404-03	.1696-03	.1023	.7412	527.3
198	.20000	.20000	344.00	.4591-02	.5545-02	.5545-02	.9000	.7809-04	.9432-04	.5697-01	.4241	526.2
198	.20000	40000	345.00	.2441-02	.2948-02	.2948-02	.9000	.4152-04	.5014-04	.3035-01	.2181	524.9
198	.20000	60000	346.00	.8946-03	.1080-02	.1080-02	.9000	.1522-04	.1837-04	.1113-01	.8081-01	524.1
198	.20000	80000	347.00	.5246-04	.6332-04	.6332-04	.9000	.8923-06	.1077-05	.6535-03	.4670-02	523.4
198	.30000	.50000-01	348.00	.8661-02	.1047-01	.1047-01	.9000	.1473-03	.1781-03	.1070	.8089	529.1
198	.30000	.20000	349.00	.5255-02	.6347-02	.6347-02	.9000	.8937-04	.1080-03	.6520-01	.4729	526.1
198	.30000	.40000	350.00	.3291-02	.3973-02	.3973-02	.9000	.5597-04	.6759-04	.4090-01	.2968	524.9
198	.30000	50000	351.00	.2326-02	.2808-02	.2808-02	.9000	.3956-04	.4776-04	.2893-01	.2047	524.4
198	.30000	90000	352.00	.9303-03	.1123-02	.1123-02	.9000	.1582-04	.1910-04	.1159-01	.8695-01	523.5
198	.40000	.10000+00	353.00	.8778-02	.1061-01	.1061-01	.9000	.1493-03	.1804-03	.1088	.8016	527.0
198	.40000	.20000	354.00	.7998-02	.9662-02	.9662-02	.9000	.1360-03	.1643-03	.9921-01	.7079	526.4
198	.40000	.50000	355.00	.5423-02	.6548-02	.6548-02	.9000	.9225-04	.1114-03	.6746-01	.4929	524.3
198	.40000	.90000	358.00	.1940-02	.2342-02	.2342-02	.9000	.3300-04	.3984-04	.2415-01	.1824	523.9
198	.50000	.50000-01	359.00	.2661-01	.3218-01	.3218-01	.9000	.4525-03	.5473-03	.3282	2.584	530.3
198	.50000	.70000	360.00	.5375-02	.6488-02	.6488-02	.9000	.9142-04	.1104-03	.6689-01	.5377	523.9
198	.50000	90000	361.00	.6092-02	.7356-02	.7356-02	.9000	.1036-03	.1251-03	.7571-01	.5406	525.0
198	.60000	.50000-01	362.00	.5640-01	.6828-01	.6828-01	.9000	.9593-03	.1161-02	.6921	5.344	534.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT17)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
198	.60000	.10000+00	363.00	.5251-01	.6353-01	.6353-01	.9000	.8931-03	.1081-02	.6462	4.910	532.1
198	.60000	.20000	364.00	.3569-01	.4316-01	.4316-01	.9000	.6071-03	.7341-03	.4406	3.263	529.9
198	.60000	.40000	365.00	.2654-01	.3206-01	.3206-01	.9000	.4515-03	.5454-03	.3293	2.328	526.3
198	.60000	.50000	366.00	.2091-01	.2526-01	.2526-01	.9000	.3557-03	.4296-03	.2598	1.855	525.4
198	.60000	.70000	367.00	.1037-01	.1251-01	.1251-01	.9000	.1763-03	.2128-03	.1290	1.037	524.1
198	.60000	.90000	368.00	.1178-01	.1422-01	.1422-01	.9000	.2004-03	.2419-03	.1466	1.099	524.3
198	.70000	.50000-01	369.00	.4891-01	.5923-01	.5923-01	.9000	.8320-03	.1007-02	.5996	4.880	535.0
198	.70000	.70000	370.00	.1529-01	.1847-01	.1847-01	.9000	.2601-03	.3141-03	.1898	1.552	525.8
198	.70000	.90000	371.00	.4478-02	.5414-02	.5414-02	.9000	.7616-04	.9209-04	.5529-01	.4278	529.7
198	.80000	.50000-01	372.00	.5270-02	.6667-02	.6667-02	.9000	.8964-04	.1134-03	.5370-01	.3903	656.6
198	.80000	.10000+00	373.00	.4264-01	.5161-01	.5161-01	.9000	.7253-03	.8778-03	.5241	4.007	533.1
198	.80000	.40000	374.00	.3280-01	.3966-01	.3966-01	.9000	.5578-03	.6745-03	.4049	2.931	529.9
198	.80000	.50000	375.00	.2615-01	.3161-01	.3161-01	.9000	.4448-03	.5376-03	.3234	2.234	528.6
198	.80000	.70000	376.00	.1847-01	.2232-01	.2232-01	.9000	.3142-03	.3797-03	.2287	1.834	527.8
198	.80000	.90000	377.00	.1767-01	.2135-01	.2135-01	.9000	.3005-03	.3631-03	.2188	1.695	527.4
198	.90000	.10000+00	378.00	.4044-01	.4896-01	.4896-01	.9000	.6879-03	.8328-03	.4965	3.587	533.9
198	.90000	.30000	379.00	.2717-01	.3286-01	.3286-01	.9000	.4622-03	.5589-03	.3354	2.467	530.1
198	.90000	.50000	380.00	.2210-02	.2667-02	.2667-02	.9000	.3759-04	.4536-04	.2754-01	.1938	523.0
198	.90000	.70000	381.00	.1464-01	.1769-01	.1769-01	.9000	.2490-03	.3009-03	.1814	1.324	527.1
198	.90000	.90000	382.00	.1687-01	.2040-01	.2040-01	.9000	.2870-03	.3469-03	.2087	1.573	528.5
198	.95000	.30000	383.00	.2323-01	.2809-01	.2809-01	.9000	.3952-03	.4778-03	.2871	2.059	529.3
198	.95000	.50000	384.00	.2035-01	.2460-01	.2460-01	.9000	.3461-03	.4184-03	.2515	1.792	529.1
198	.95000	.90000	385.00	.1916-01	.2316-01	.2316-01	.9000	.3249-03	.3940-03	.2369	1.612	528.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2695

OH84B 60-0 VERTICAL TAIL

(R4UT17)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
185	.9852	7.940	39.97	-3.981	202.7	1267.	93.08	.2180-01	.9622	3755.	.6323-03	.7490-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
185	.2408-01	.4087-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
185	.10000+00	.10000+00	340.00	.1823-01	.2200-01	.2200-01	.9000	.4389-03	.5296-03	.3246	2.316	527.1
185	.10000+00	.30000	341.00	.5811-02	.7008-02	.7008-02	.9000	.1399-03	.1687-03	.1037	.7649	525.3
185	.10000+00	.50000	342.00	.3640-02	.4388-02	.4388-02	.9000	.8765-04	.1057-03	.6512-01	.4969	523.7
185	.20000	.10000+00	343.00	.1384-01	.1669-01	.1669-01	.9000	.3332-03	.4018-03	.2472	1.794	524.9
185	.20000	.70000	344.00	.6514-02	.7854-02	.7854-02	.9000	.1569-03	.1891-03	.1165	.8678	524.2
185	.20000	.40000	345.00	.3528-02	.4253-02	.4253-02	.9000	.8496-04	.1024-03	.6320-01	.4548	522.7
185	.20000	.60000	346.00	.1945-02	.2343-02	.2343-02	.9000	.4683-04	.5642-04	.3489-01	.2536	521.5
185	.20000	.80000	347.00	.9674-03	.1165-02	.1165-02	.9000	.2329-04	.2806-04	.1738-01	.1244	520.4
185	.30000	.50000-01	348.00	.1440-01	.1737-01	.1737-01	.9000	.3468-03	.4184-03	.2568	1.944	526.2
185	.30000	.20000	349.00	.8542-02	.1030-01	.1030-01	.9000	.2057-03	.2479-03	.1529	1.110	523.5
185	.30000	.40000	350.00	.4775-02	.5755-02	.5755-02	.9000	.1150-03	.1386-03	.8559-01	.6220	522.3
185	.30000	.50000	351.00	.3371-02	.4062-02	.4062-02	.9000	.8117-04	.9780-04	.6049-01	.4286	521.5
185	.30000	.90000	352.00	.1276-02	.1537-02	.1537-02	.9000	.3072-04	.3700-04	.2294-01	.1724	520.1
185	.40000	.10000+00	353.00	.1684-01	.2031-01	.2031-01	.9000	.4056-03	.4890-03	.3011	2.222	524.1
185	.40000	.20000	354.00	.1550-01	.1869-01	.1869-01	.9000	.3733-03	.4501-03	.2771	1.980	524.3
185	.40000	.50000	355.00	.9334-02	.1125-01	.1125-01	.9000	.2247-03	.2708-03	.1673	1.224	522.1
185	.40000	.90000	358.00	.2488-02	.2996-02	.2996-02	.9000	.5990-04	.7214-04	.4470-01	.3382	520.4
185	.50000	.50000-01	359.00	.6282-01	.7593-01	.7593-01	.9000	.1513-02	.1828-02	1.109	8.720	533.2
185	.50000	.70000	360.00	.9084-02	.1095-01	.1095-01	.9000	.2187-03	.2636-03	.1628	1.309	522.4
185	.50000	.90000	361.00	.7925-02	.9550-02	.9550-02	.9000	.1908-03	.2300-03	.1420	1.015	522.4
185	.60000	.50000-01	362.00	.5780-01	.6986-01	.6986-01	.9000	.1392-02	.1682-02	1.021	7.886	533.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2696

## OH84B 60-0 VERTICAL TAIL

(R4UT17)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
185	.60000	.10000+00	363.00	.5380-01	.6498-01	.6498-01	.9000	.1295-02	.1565-02	.9532	7.247	530.8
185	.60000	.20000	364.00	.4354-01	.5257-01	.5257-01	.9000	.1048-02	.1266-02	.7732	5.728	529.2
185	.60000	.40000	365.00	.4169-01	.5030-01	.5030-01	.9000	.1004-02	.1211-02	.7426	5.248	526.9
185	.60000	.50000	366.00	.3775-01	.4554-01	.4554-01	.9000	.9089-03	.1097-02	.6730	4.803	526.2
185	.60000	.70000	367.00	.1902-01	.2293-01	.2293-01	.9000	.4580-03	.5522-03	.3403	2.735	523.8
185	.60000	.90000	368.00	.1798-01	.2167-01	.2167-01	.9000	.4330-03	.5217-03	.3223	2.420	522.2
185	.70000	.50000-01	369.00	.4232-01	.5112-01	.5112-01	.9000	.1019-02	.1231-02	.7498	6.115	530.8
185	.70000	.70000	370.00	.2109-01	.2542-01	.2542-01	.9000	.5077-03	.6122-03	.3768	3.083	524.5
185	.70000	.90000	371.00	.6045-02	.7299-02	.7299-02	.9000	.1455-03	.1758-03	.1073	.8300	529.7
185	.80000	.50000-01	372.00	.2254-02	.2742-02	.2742-02	.9000	.5428-04	.6603-04	.3863-01	.2952	554.9
185	.80000	.10000+00	373.00	.3816-01	.4605-01	.4605-01	.9000	.9188-03	.1109-02	.6787	5.203	527.9
185	.80000	.40000	374.00	.2471-01	.2981-01	.2981-01	.9000	.5950-03	.7177-03	.4411	3.200	525.4
185	.80000	.50000	375.00	.1997-01	.2408-01	.2408-01	.9000	.4809-03	.5798-03	.3570	2.472	524.2
185	.80000	.70000	376.00	.1527-01	.1841-01	.1841-01	.9000	.3677-03	.4432-03	.2733	2.198	523.4
185	.80000	.90000	377.00	.1625-01	.1959-01	.1959-01	.9000	.3913-03	.4716-03	.2911	2.260	522.9
185	.90000	.10000+00	378.00	.3852-01	.4650-01	.4650-01	.9000	.9275-03	.1120-02	.6845	4.958	528.7
185	.90000	.30000	379.00	.2327-01	.2807-01	.2807-01	.9000	.5603-03	.6758-03	.4155	3.064	525.2
185	.90000	.50000	380.00	.3287-02	.3959-02	.3959-02	.9000	.7914-04	.9532-04	.5903-01	.4159	520.7
185	.90000	.70000	381.00	.1122-01	.1352-01	.1352-01	.9000	.2702-03	.3256-03	.2012	1.472	522.1
185	.90000	.90000	382.00	.1317-01	.1587-01	.1587-01	.9000	.3171-03	.3821-03	.2360	1.784	522.5
185	.95000	.30000	383.00	.2207-01	.2661-01	.2661-01	.9000	.5314-03	.6407-03	.3944	2.835	524.4
185	.95000	.50000	384.00	.1973-01	.2378-01	.2378-01	.9000	.4750-03	.5726-03	.3527	2.520	524.0
185	.95000	.90000	385.00	.1484-01	.1789-01	.1789-01	.9000	.3574-03	.4308-03	.2659	1.815	522.7

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OH84B MODEL 60-O IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-O VERTICAL TAIL

(R4UT17)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
176	1 997	7.980	39 97	-3.999	436.5	1307	95.13	.4544-01	2.026	3815.	.1289-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
176	.3513-01	.2871-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
176	.10000+00	.10000+00	340.00	.2035-01	.2449-01	.2449-01	.9000	.7148-03	.8601-03	.5531	3.933	533.0
176	.10000+00	.30000	341.00	.8571-02	.1031-01	.1031-01	.9000	.3011-03	.3621-03	.2335	1.716	531.2
176	.10000+00	.50000	342.00	.5497-02	.6608-02	.6608-02	.9000	.1931-03	.2321-03	.1501	1.142	529.1
176	.20000	.10000+00	343.00	.1557-01	.1872-01	.1872-01	.9000	.5470-03	.6576-03	.4248	3.075	530.0
176	.20000	.20000	344.00	.8304-02	.9981-02	.9981-02	.9000	.2917-03	.3506-03	.2268	1.685	529.2
176	.20000	.40000	345.00	.5174-02	.6217-02	.6217-02	.9000	.1817-03	.2184-03	.1416	1.016	527.8
176	.20000	.60000	346.00	.2986-02	.3587-02	.3587-02	.9000	.1049-03	.1260-03	.8183-01	.5933	526.5
176	.20000	.80000	347.00	.2361-02	.2836-02	.2836-02	.9000	.8294-04	.9960-04	.6479-01	.4625	525.5
176	.30000	.50000-01	348.00	.1863.01	.2241-01	.2241-01	.9000	.6544-03	.7872-03	.5067	3.823	532.4
176	.30000	.20000	349.00	.1464-01	.1760-01	.1760-01	.9000	.5141-03	.6180-03	.3994	2.891	529.8
176	.30000	.40000	350.00	.9856-02	.1185-01	.1185-01	.9000	.3462-03	.4161-03	.2694	1.951	528.5
176	.30000	.50000	351.00	.7791-02	.9361-02	.9361-02	.9000	.2737-03	.3288-03	.2132	1.506	527.5
176	.30000	.90000	352.00	.3160-02	.3796-02	.3796-02	.9000	.1110-03	.1333-03	.8667-01	.6496	525.9
176	.40000	.10000+00	353.00	.2976-01	.3580-01	.3580-01	.9000	.1045-02	.1258-02	.8092	5.945	532.6
176	.40000	.20000	354.00	.3687-01	.4439-01	.4439-01	.9000	.1295-02	.1559-02	.9987	7.094	535.5
176	.40000	.50000	355.00	.2489-01	.2994-01	.2994-01	.9000	.8743-03	.1052-02	.6776	4.932	531.6
176	.40000	.90000	358.00	.4945-02	.5941-02	.5941-02	.9000	.1737-03	.2087-03	.1355	1.022	526.6
176	.50000	.50000-01	359.00	.5081-01	.6127-01	.6127-01	.9000	.1785-02	.2152-02	1.367	10.70	540.9
176	.50000	.70000	360.00	.1965-01	.2364-01	.2364-01	.9000	.6904-03	.8304-03	.5349	4.283	531.8
176	.50000	.90000	361.00	.1616-01	.1943-01	.1943-01	.9000	.5676-03	.6824-03	.4407	3.139	530.2
176	.60000	.50000-01	362.00	.4400-01	.5302-01	.5302-01	.9000	.1545-02	.1862-02	1.186	9.132	539.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2698

## OH84B 60-0 VERTICAL TAIL

(R4UT17)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
176	.60000	.10000+00	363 00	.4122-01	.4965-01	.4965-01	.9000	.1448-02	.1744-02	1.115	8.453	536.6
176	.60000	.20000	364.00	.3612-01	.4350-01	.4350-01	.9000	.1269-02	.1528-02	.9770	7.211	536.6
176	.60000	.40000	365 00	.3755-01	.4520-01	.4520-01	.9000	.1319-02	.1588-02	1.018	7.167	534.8
176	.60000	.50000	366 00	.3489-01	.4199-01	.4199-01	.9000	.1225-02	.1475-02	.9463	6.725	534.5
176	.60000	.70000	367.00	.2090-01	.2514-01	.2514-01	.9000	.7341-03	.8831-03	.5688	4.553	531.9
176	.60000	.90000	368 00	.2126-01	.2556-01	.2556-01	.9000	.7468-03	.8979-03	.5800	4.337	530.1
176	.70000	.50000-01	369.00	.3625-01	.4370-01	.4370-01	.9000	.1273-02	.1535-02	.9767	7.930	539.7
176	.70000	.70000	370 00	.1522-01	.1830-01	.1830-01	.9000	.5346-03	.6429-03	.4150	3.385	530.5
176	.70000	.90000	371 00	.4541-02	.5462-02	.5462-02	.9000	.1595-03	.1919-03	.1235	.9546	532.2
176	.80000	.50000-01	372 00	.2221-02	.2810-02	.2810-02	.9000	.7801-04	.9871-04	.4860-01	.3488	683.6
176	.80000	.10000+00	373 00	.3395-01	.4088-01	.4088-01	.9000	.1193-02	.1436-02	.9189	7.015	536.1
176	.80000	.40000	374 00	.2854-01	.3435-01	.3435-01	.9000	.1003-02	.1207-02	.7745	5.594	534.2
176	.80000	.50000	375 00	.2341-01	.2816-01	.2816-01	.9000	.8221-03	.9891-03	.6365	4.388	532.5
176	.80000	.70000	376.00	.1525-01	.1833-01	.1833-01	.9000	.5355-03	.6439-03	.4156	3.329	530.6
176	.80000	.90000	377 00	.1270-01	.1526-01	.1526-01	.9000	.4459-03	.5360-03	.3469	2.686	528.7
176	.90000	.10000+00	378.00	.3382-01	.4073-01	.4073-01	.9000	.1188-02	.1431-02	.9145	6.597	536.7
176	.90000	.30000	379 00	.2317-01	.2787-01	.2787-01	.9000	.8138-03	.9790-03	.6303	4.632	532.2
176	.90000	.50000	380.00	.9009-02	.1083-01	.1083-01	.9000	.3165-03	.3803-03	.2463	1.728	528.4
176	.90000	.70000	381 00	.1214-01	.1458-01	.1458-01	.9000	.4263-03	.5123-03	.3318	2.419	528.2
176	.90000	.90000	382 00	.1249-01	.1501-01	.1501-01	.9000	.4387-03	.5273-03	.3413	2.571	528.7
176	.95000	.30000	383 00	.2093-01	.2517-01	.2517-01	.9000	.7352-03	.8842-03	.5700	4.084	531.3
176	.95000	.50000	384 00	.2149-01	.2585-01	.2585-01	.9000	.7550-03	.9080-03	.5852	4.165	531.6
176	.95000	.90000	385 00	.1674-01	.2012-01	.2012-01	.9000	.5881-03	.7068-03	.4574	3.112	528.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2699

OH84B 60-0 VERTICAL TAIL

(R4UT17)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
97	2.987	7.990	40 01	-4.020	670.8	1328.	96.43	.6927-01	3.096	3846.	.1939-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
97	.4354-01	.2345-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
97	.10000+00	.10000+00	340 00	.2152-01	.2587-01	.2587-01	.9000	.9373-03	.1127-02	.7407	5.257	537.4
97	.10000+00	.30000	341.00	.1137-01	.1366-01	.1366-01	.9000	.4952-03	.5948-03	.3925	2.880	535.0
97	.10000+00	.50000	342.00	.6978-02	.8377-02	.8377-02	.9000	.3038-03	.3647-03	.2416	1.835	532.6
97	.20000	.10000+00	343.00	.1579-01	.1896-01	.1896-01	.9000	.6876-03	.8257-03	.5460	3.945	533.6
97	.20000	.20000	344 00	.9133-02	.1096-01	.1096-01	.9000	.3977-03	.4774-03	.3161	2.345	532.8
97	.20000	.40000	345.00	.7517-02	.9022-02	.9022-02	.9000	.3273-03	.3928-03	.2605	1.866	531.7
97	.20000	.60000	346.00	.4723-02	.5665-02	.5665-02	.9000	.2056-03	.2467-03	.1641	1.188	529.7
97	.20000	.80000	347 00	.2887-02	.3462-02	.3462-02	.9000	.1257-03	.1508-03	.1004	.7160	528.6
97	.30000	.50000-01	348.00	.2157-01	.2592-01	.2592-01	.9000	.9392-03	.1129-02	.7425	5.589	537.1
97	.30000	.20000	349 00	.1498-01	.1798-01	.1798-01	.9000	.6521-03	.7830-03	.5178	3.741	533.6
97	.30000	.40000	350 00	.1183-01	.1420-01	.1420-01	.9000	.5152-03	.6183-03	.4099	2.964	532.0
97	.30000	.50000	351 00	.1166-01	.1400-01	.1400-01	.9000	.5079-03	.6096-03	.4043	2.850	531.7
97	.30000	.90000	352 00	.4062-02	.4871-02	.4871-02	.9000	.1769-03	.2121-03	.1414	1.058	528.5
97	.40000	.10000+00	353 00	.3538-01	.4252-01	.4252-01	.9000	.1541-02	.1852-02	.1218	8.924	537.4
97	.40000	.20000	354 00	.3828-01	.4603-01	.4603 01	.9000	.1667-02	.2004-02	.1314	9.315	539.3
97	.40000	.40000	355 00	.5599-09	.6336-09	.6336-09	.9000	.2438-10	.2759-10	.2784-07	2404-06	185.9
97	.40000	.50000	356 00	.2578-01	.3097-01	.3097-01	.9000	.1123-02	.1349-02	.8889	6.457	535.8
97	.40000	.90000	358 00	.9247-02	.1109-01	.1109-01	.9000	.4026-03	.4831-03	.3210	2.416	530.5
97	.50000	.50000-01	359 00	.5138-01	.6191-01	.6191-01	.9000	.2237-02	.2696-02	.1747	13.64	546.9
97	.50000	.70000	360 00	.1862-01	.2236-01	.2236-01	.9000	.8106-03	.9736-03	.6429	5.140	534.5
97	.50000	.90000	361 00	.1751-01	.2102-01	.2102-01	.9000	.7624-03	.9154-03	.6056	4.306	533.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2700

## OH84B 60-0 VERTICAL TAIL

(R4UT17)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
97	.60000	.50000-01	362.00	.4713-01	.5676-01	.5676-01	.9000	.2052-02	.2472-02	1.605	12.32	545.6
97	60000	.10000+00	363.00	.4487-01	.5399-01	.5399-01	.9000	.1954-02	.2351-02	1.535	11.60	542.2
97	.60000	20000	364.00	.4046-01	.4868-01	.4868-01	.9000	.1762-02	.2120-02	1.385	10.20	541.3
97	60000	.40000	365.00	.3893-01	.4680-01	.4680-01	.9000	.1695-02	.2038-02	1.339	9.407	538.0
97	60000	50000	366.00	.3425-01	.4116-01	.4116-01	.9000	.1491-02	.1792-02	1.179	8.371	536.8
97	60000	70000	367.00	.1747-01	.2098-01	.2098-01	.9000	.7608-03	.9136-03	6042	4.833	533.6
97	60000	.90000	368.00	.1722-01	.2066-01	.2066-01	.9000	.7497-03	.8998-03	5968	4.459	531.7
97	70000	.50000-01	369.00	.3986-01	.4800-01	.4800-01	.9000	.1736-02	.2090-02	1.358	11.00	545.2
97	70000	.70000	370.00	.1564-01	.1877-01	.1877-01	.9000	.6808-03	.8173-03	.5411	4.409	532.8
97	70000	.90000	371.00	.4262-02	.5117-02	.5117-02	.9000	.1856-03	.2228-03	.1475	1.139	533.0
97	80000	.50000-01	372.00	.5191-02	.6348-02	.6348-02	.9000	.2260-03	.2764-03	.1648	1.232	598.8
97	80000	.10000+00	373.00	.3774-01	.4540-01	.4540-01	.9000	.1643-02	.1977-02	1.294	9.855	540.5
97	.80000	40000	374.00	.3151-01	.3788-01	.3788-01	.9000	.1372-02	.1650-02	1.082	7.799	538.8
97	80000	.50000	375.00	.2641-01	.3173-01	.3173-01	.9000	.1150-02	.1382-02	.9098	6.260	536.5
97	80000	.70000	376.00	.1635-01	.1963-01	.1963-01	.9000	.7117-03	.8546-03	.5654	4.523	533.2
97	80000	.90000	377.00	.1341-01	.1610-01	.1610-01	.9000	.5839-03	.7008-03	.4648	3.594	531.6
97	90000	.10000+00	378.00	.3599-01	.4330-01	.4330-01	.9000	.1567-02	.1885-02	1.233	8.872	541.1
97	90000	.30000	379.00	.2658-01	.3194-01	.3194-01	.9000	.1157-02	.1391-02	.9160	6.717	536.3
97	90000	.50000	380.00	.1493-01	.1793-01	.1793-01	.9000	.6503-03	.7807-03	.5169	3.619	532.8
97	.90000	.70000	381.00	.1261-01	.1513-01	.1513-01	.9000	.5492-03	.6590-03	.4377	3.187	530.7
97	.90000	.90000	382.00	.1418-01	.1702-01	.1702-01	.9000	.6177-03	.7412-03	.4919	3.701	531.3
97	.95000	.30000	383.00	.2452-01	.2946-01	.2946-01	.9000	.1068-02	.1283-02	.8459	6.047	535.6
97	.95000	.50000	384.00	.2317-01	.2784-01	.2784-01	.9000	.1009-02	.1212-02	.7994	5.678	535.4
97	95000	.90000	385.00	.1643-01	.1972-01	.1972-01	.9000	.7155-03	.8587-03	.5697	3.871	531.5



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2701

OH84B 60-0 VERTICAL TAIL

(R4UT18)

VERT TAIL

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
195	.4938	7.900	39.96	-1.991	98.69	1254.	92.99	.1097-01	.4792	3735.	.3184-03	.7483-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
195	.1696-01	.5753-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
195	.10000+00	.10000+00	340.00	.2180-01	.2636-01	.2636-01	.9000	.3698-03	.4472-03	.2681	1.911	528.9
195	.10000+00	.30000	341.00	.5070-02	.6125-02	.6125-02	.9000	.8600-04	.1039-03	.6259-01	.4615	525.8
195	.10000+00	.50000	342.00	.2872-02	.3469-02	.3469-02	.9000	.4872-04	.5883-04	.3552-01	.2709	524.5
195	.20000	.10000+00	343.00	.1181-01	.1428-01	.1428-01	.9000	.2004-03	.2421-03	.1457	1.056	526.6
195	.20000	.20000	344 00	.3522-02	.4254-02	.4254-02	.9000	.5974-04	.7216-04	.4351-01	.3240	525.3
195	.20000	.40000	345 00	.2046-02	.2470-02	.2470-02	.9000	.3470-04	.4190-04	.2531-01	.1820	524.2
195	.20000	.60000	346 00	.2048-02	.2473-02	.2473-02	.9000	.3475-04	.4195-04	.2537-01	.1842	523.6
195	.20000	.80000	347 00	.2119-02	.2558-02	.2558-02	.9000	.3594-04	.4338-04	.2627-01	.1878	522.8
195	.30000	.50000-01	348 00	.9685-02	.1171-01	.1171-01	.9000	.1643-03	.1986-03	.1191	.9003	528.7
195	.30000	.20000	349 00	.2693-02	.3253-02	.3253-02	.9000	.4568-04	.5517-04	.3330-01	.2416	524.8
195	.30000	.40000	350 00	.2012-02	.2429-02	.2429-02	.9000	.3413-04	.4121-04	.2491-01	.1809	523.8
195	.30000	.50000	351 00	.2126-02	.2567-02	.2567-02	.9000	.3607-04	.4354-04	.2634-01	.1865	523.3
195	.30000	.90000	352 00	.2927-02	.3533-02	.3533-02	.9000	.4965-04	.5992-04	.3629-01	.2725	522.6
195	.40000	.10000+00	353 00	.4559-02	.5506-02	.5506-02	.9000	.7732-04	.9339-04	.5633-01	.4154	525.2
195	.40000	.20000	354 00	.2793-02	.3373-02	.3373-02	.9000	.4737-04	.5721-04	.3455-01	.2468	524.3
195	.40000	.50000	356 00	.1667-02	.2012-02	.2012-02	.9000	.2827-04	.3413-04	.2067-01	.1511	522.6
195	.40000	.90000	358 00	.3469-02	.4187-02	.4187-02	.9000	.5884-04	.7102-04	.4299-01	.3249	522.9
195	.50000	.50000-01	359.00	.3183-02	.3846-02	.3846-02	.9000	.5398-04	.6523-04	.3925-01	.3096	526.6
195	.50000	.70000	360 00	.9423-03	.1137-02	.1137-02	.9000	.1598-04	.1929-04	.1170-01	.9412-01	521.9
195	.50000	.90000	361 00	.3931-02	.4745-02	.4745-02	.9000	.6667-04	.8049-04	.4869-01	.3480	523.4
195	.60000	.50000-01	362 00	.6212-02	.7508-02	.7508-02	.9000	.1054-03	.1273-03	.7650-01	.5926	527.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2702

## OH84B 60-0 VERTICAL TAIL

(R4UT18)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
195	.60000	.10000+00	353.00	.7808-02	.9435-02	.9435-02	.9000	.1324-03	.1600-03	.9625-01	.7332	526.9
195	.60000	.20000	364.00	.6308-02	.7619-02	.7619-02	.9000	.1070-03	.1292-03	.7795-01	.5787	525.1
195	.60000	.40000	365.00	.2816-02	.3399-02	.3399-02	.9000	.4776-04	.5765-04	.3492-01	.2473	522.6
195	.60000	.50000	366.00	.1445-02	.1744-02	.1744-02	.9000	.2451-04	.2958-04	.1795-01	.1284	521.5
195	.60000	.70000	367.00	.6484-03	.7823-03	.7823-03	.9000	.1100-04	.1327-04	.8055-02	.6484-01	521.2
195	.60000	.90000	368.00	.3807-02	.4594-02	.4594-02	.9000	.6457-04	.7792-04	.4725-01	.3548	522.0
195	.70000	.50000-01	369.00	.1695-01	.2049-01	.2049-01	.9000	.2875-03	.3476-03	.2083	1.700	529.1
195	.70000	.70000	370.00	.1804-02	.2177-02	.2177-02	.9000	.3059-04	.3692-04	.2238-01	.1834	522.0
195	.70000	.90000	371.00	.1323-02	.1599-02	.1599-02	.9000	.2244-04	.2713-04	.1627-01	.1259	528.6
195	.80000	.50000-01	372.00	.9602-02	.1171-01	.1171-01	.9000	.1629-03	.1985-03	.1136	.8672	556.2
195	.80000	.10000+00	373.00	.3956-01	.4785-01	.4785-01	.9000	.6711-03	.8117-03	.4856	3.719	530.0
195	.80000	.40000	374.00	.1636-01	.1976-01	.1976-01	.9000	.2774-03	.3352-03	.2018	1.464	526.1
195	.80000	.50000	375.00	.1151-01	.1390-01	.1390-01	.9000	.1952-03	.2357-03	.1422	.9838	525.3
195	.80000	.70000	376.00	.5368-02	.6481-02	.6481-02	.9000	.9104-04	.1099-03	.6644-01	.5340	523.9
195	.80000	.90000	377.00	.5950-02	.7184-02	.7184-02	.9000	.1009-03	.1218-03	.7364-01	.5715	524.0
195	.90000	.10000+00	378.00	.5426-01	.6566-01	.6566-01	.9000	.9203-03	.1114-02	.6642	4.803	531.9
195	.90000	.30000	379.00	.3451-01	.4172-01	.4172-01	.9000	.5853-03	.7076-03	.4246	3.126	528.3
195	.90000	.50000	380.00	.1538-02	.1856-02	.1856-02	.9000	.2608-04	.3147-04	.1909-01	.1344	521.8
195	.90000	.70000	381.00	.1100-01	.1329-01	.1329-01	.9000	.1867-03	.2254-03	.1361	.9937	524.8
195	.90000	.90000	382.00	.1066-01	.1288-01	.1288-01	.9000	.1808-03	.2184-03	.1316	.9931	525.8
195	.95000	.30000	383.00	.3622-01	.4379-01	.4379-01	.9000	.6144-03	.7427-03	.4457	3.198	528.2
195	.95000	.50000	384.00	.2614-01	.3158-01	.3158-01	.9000	.4433-03	.5357-03	.3223	2.300	526.7
195	.95000	.90000	385.00	.1559-01	.1884-01	.1884-01	.9000	.2645-03	.3196-03	.1925	1.311	526.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2703

OH84B 60-0 VERTICAL TAIL

(R4UT18)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
182	1.011	7.940	39.97	-1.995	206.3	1260.	92.56	.2219-01	.9793	3745.	.6470-03	.7449-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
182	.2427-01	.4037-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
182	.10000+00	.10000+00	340.00	.1722-01	.2081-01	.2081-01	.9000	.4179-03	.5049-03	.3053	2.176	529.0
182	.10000+00	.30000	341.00	.5550-02	.6703-02	.6703-02	.9000	.1347-03	.1627-03	.9864-01	.7266	527.3
182	.10000+00	.50000	342.00	.4233-02	.5110-02	.5110-02	.9000	.1027-03	.1240-03	.7537-01	.5745	525.9
182	.20000	.10000+00	343.00	.1556-01	.1879-01	.1879-01	.9000	.3776-03	.4559-03	.2768	2.007	526.5
182	.20000	.20000	344.00	.6631-02	.8006-02	.8006-02	.9000	.1609-03	.1943-03	.1181	.8790	526.0
182	.20000	.40000	345.00	.2813-02	.3395-02	.3395-02	.9000	.6827-04	.8238-04	.5020-01	.3609	524.3
182	.20000	.60000	346.00	.2569-02	.3099-02	.3099-02	.9000	.6235-04	.7522-04	.4591-01	.3334	523.3
182	.20000	.80000	347.00	.1557-02	.1878-02	.1878-02	.9000	.3779-04	.4557-04	.2788-01	.1994	522.0
182	.30000	.50000-01	348.00	.1125-01	.1359-01	.1359-01	.9000	.2731-03	.3297-03	.2001	1.514	526.8
182	.30000	.20000	349.00	.2735-02	.3299-02	.3299-02	.9000	.6636-04	.8007-04	.4883-01	.3546	523.8
182	.30000	.40000	350.00	.1715-02	.2069-02	.2069-02	.9000	.4162-04	.5020-04	.3066-01	.2227	522.9
182	.30000	.50000	351.00	.2128-02	.2567-02	.2567-02	.9000	.5165-04	.6229-04	.3808-01	.2697	522.4
182	.30000	.90000	352.00	.3087-02	.3723-02	.3723-02	.9000	.7492-04	.9034-04	.5528-01	.4152	521.8
182	.40000	.10000+00	353.00	.5125-02	.6184-02	.6184-02	.9000	.1244-03	.1501-03	.9150-01	.6752	524.0
182	.40000	.20000	354.00	.3501-02	.4224-02	.4224-02	.9000	.8497-04	.1025-03	.6257-01	.4472	523.4
182	.40000	.50000	356.00	.2221-02	.2678-02	.2678-02	.9000	.5389-04	.6499-04	.3974-01	.2907	522.2
182	.40000	.90000	358.00	.3554-02	.4285-02	.4285-02	.9000	.8624-04	.1040-03	.6363-01	.4810	521.9
182	.50000	.50000-01	359.00	.1099-01	.1327-01	.1327-01	.9000	.2668-03	.3221-03	.1957	1.544	526.2
182	.50000	.70000	360.00	.2636-02	.3178-02	.3178-02	.9000	.6396-04	.7713-04	.4718-01	.3796	522.0
182	.50000	.90000	361.00	.4253-02	.5129-02	.5129-02	.9000	.1032-03	.1245-03	.7610-01	.5442	522.4
182	.60000	.50000-01	362.00	.3961-01	.4789-01	.4789-01	.9000	.9611-03	.1162-02	.7002	5.414	531.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT18)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
182	.60000	.10000+00	363.00	.3744-01	.4524-01	.4524-01	.9000	.9086-03	.1098-02	.6637	5.050	529.2
182	60000	.20000	364.00	.2352-01	.2840-01	.2840-01	.9000	.5708-03	.6893-03	.4184	3.103	526.8
182	60000	.40000	365.00	.1529-01	.1845-01	.1845-01	.9000	.3711-03	.4478-03	.2729	1.931	524.3
182	.60000	.50000	366.00	.1178-01	.1421-01	.1421-01	.9000	.2860-03	.3450-03	.2106	1.505	523.2
182	60000	.70000	367.00	.4901-02	.5911-02	.5911-02	.9000	.1189-03	.1434-03	.8772-01	.7058	522.2
182	60000	.90000	368.00	.5707-02	.6881-02	.6881-02	.9000	.1385-03	.1670-03	.1023	.7681	521.4
182	.70000	.50000-01	369.00	.5618-01	.6799-01	.6799-01	.9000	.1363-02	.1650-02	.9885	8.046	534.6
182	.70000	.70000	370.00	.8864-02	.1069-01	.1069-01	.9000	.2151-03	.2595-03	.1585	1.298	522.8
182	.70000	.90000	371.00	.2821-02	.3409-02	.3409-02	.9000	.6846-04	.8273-04	.5001-01	.3871	529.1
182	.80000	.50000-01	372.00	.5159-02	.6484-02	.6484-02	.9000	.1252-03	.1574-03	.7713-01	.5642	643.5
182	80000	.10000+00	373.00	.4869-01	.5885-01	.5885-01	.9000	.1182-02	.1428-02	.8615	6.596	530.5
182	.80000	.40000	374.00	.4499-01	.5437-01	.5437-01	.9000	.1092-02	.1319-02	.7973	5.772	529.4
182	80000	.50000	375.00	.3328-01	.4018-01	.4018-01	.9000	.8076-03	.9752-03	.5917	4.092	526.9
182	80000	.70000	376.00	.1612-01	.1945-01	.1945-01	.9000	.3913-03	.4721-03	.2878	2.313	524.2
182	80000	.90000	377.00	.1361-01	.1642-01	.1642-01	.9000	.3303-03	.3985-03	.2432	1.888	523.5
182	.90000	.10000+00	378.00	.3888-01	.4698-01	.4698-01	.9000	.9436-03	.1140-02	.6892	4.990	529.2
182	90000	.30000	379.00	.3864-01	.4667-01	.4667-01	.9000	.9377-03	.1133-02	.6866	5.057	527.5
182	.90000	.50000	380.00	.2196-02	.2648-02	.2648-02	.9000	.5330-04	.6427-04	.3934-01	.2770	521.6
182	.90000	.70000	381.00	.1980-01	.2389-01	.2389-01	.9000	.4805-03	.5798-03	.3536	2.584	523.9
182	.90000	.90000	382.00	.1812-01	.2186-01	.2186-01	.9000	.4397-03	.5305-03	.3235	2.443	523.9
182	.95000	.30000	383.00	.3181-01	.3840-01	.3840-01	.9000	.7720-03	.9320-03	.5664	4.068	526.0
182	.95000	.50000	384.00	.3763-01	.4545-01	.4545-01	.9000	.9133-03	.1103-02	.6690	4.773	527.1
182	.95000	.90000	385.00	.2517-01	.3037-01	.3037-01	.9000	.6109-03	.7371-03	.4492	3.063	524.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT18)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
173	2.017	7.980	39.99	-2.004	436.3	1298.	94.47	.4542-01	2.025	3802.	.1298-02	.7602-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
173	.3508-01	.2860-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
173	.10000+00	.10000+00	340.00	.1794-01	.2163-01	.2163-01	.9000	.6294-03	.7588-03	.4791	3.401	536.5
173	.10000+00	.30000	341.00	.8626-02	.1040-01	.1040-01	.9000	.3025-03	.3646-03	.2306	1.692	535.4
173	.10000+00	.50000	342.00	.6856-02	.8261-02	.8261-02	.9000	.2405-03	.2898-03	.1835	1.393	534.5
173	.20000	.10000+00	343.00	.1783-01	.2149-01	.2149-01	.9000	.6255-03	.7539-03	.4769	3.442	535.3
173	.20000	.20000	344.00	.7487-02	.9020-02	.9020-02	.9000	.2626-03	.3164-03	.2006	1.487	533.9
173	.20000	.40000	345.00	.4177-02	.5031-02	.5031-02	.9000	.1465-03	.1765-03	.1120	.8014	533.3
173	.20000	.60000	346.00	.2551-02	.3072-02	.3072-02	.9000	.8947-04	.1077-03	.6848-01	.4950	532.4
173	.20000	.80000	347.00	.2136-02	.2572-02	.2572-02	.9000	.7493-04	.9022-04	.5738-01	.4083	531.9
173	.30000	.50000-01	348.00	.1395-01	.1682-01	.1682-01	.9000	.4894-03	.5900-03	.3727	2.807	536.2
173	.30000	.20000	349.00	.6031-02	.7264-02	.7264-02	.9000	.2115-03	.2548-03	.1617	1.168	533.4
173	.30000	.40000	350.00	.3061-02	.3687-02	.3687-02	.9000	.1074-03	.1293-03	.8214-01	.5937	532.7
173	.30000	.50000	351.00	.2082-02	.2507-02	.2507-02	.9000	.7303-04	.8794-04	.5591-01	.3940	532.2
173	.30000	.90000	352.00	.3417-02	.4115-02	.4115-02	.9000	.1199-03	.1443-03	.9166-01	.6846	532.9
173	.40000	.10000+00	353.00	.1133-01	.1365-01	.1365-01	.9000	.3974-03	.4788-03	.3033	2.226	534.4
173	.40000	.20000	354.00	.9195-02	.1108-01	.1108-01	.9000	.3225-03	.3886-03	.2461	1.749	534.6
173	.40000	.50000	356.00	.3934-02	.4738-02	.4738-02	.9000	.1380-03	.1662-03	.1055	.7671	533.3
173	.40000	.70000	357.00	.4663-10	.5512-10	.5512-10	.9000	.1636-11	.1933-11	.1379-08	.1109-07	454.8
173	.40000	.90000	358.00	.4211-02	.5072-02	.5072-02	.9000	.1477-03	.1779-03	.1129	.8483	533.5
173	.50000	.50000-01	359.00	.4406-01	.5325-01	.5325-01	.9000	.1545-02	.1868-02	1.162	9.072	545.9
173	.50000	.70000	360.00	.4187-02	.5045-02	.5045-02	.9000	.1469-03	.1770-03	.1121	.8964	534.3
173	.50000	.90000	361.00	.4938-02	.5949-02	.5949-02	.9000	.1732-03	.2087-03	.1322	.9399	534.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT18)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
173	.60000	.50000-01	362.00	.5689-01	.6882-01	.6882-01	.9000	.1996-02	.2414-02	1.494	11.45	518.9
173	.60000	.10000+00	363.00	.5324-01	.6435-01	.6435-01	.9000	.1867-02	.2257-02	1.404	10.59	545.8
173	.60000	.20000	364.00	.4557-01	.5506-01	.5506-01	.9000	.1598-02	.1931-02	1.204	8.849	544.6
173	.60000	.40000	365.00	.4329-01	.5228-01	.5228-01	.9000	.1518-02	.1834-02	1.146	8.032	543.0
173	.60000	.50000	366.00	.3437-01	.4148-01	.4148-01	.9000	.1206-02	.1455-02	.9123	6.462	540.9
173	.60000	.70000	367.00	.8784-02	.1059-01	.1059-01	.9000	.3081-03	.3713-03	.2348	1.876	535.5
173	.60000	.90000	368.00	.6654-02	.8014-02	.8014-02	.9000	.2334-03	.2811-03	.1784	1.332	533.3
173	.70000	.50000-01	369.00	.4186-01	.5060-01	.5060-01	.9000	.1468-02	.1775-02	1.103	8.926	546.4
173	.70000	.70000	370.00	.1791-01	.2161-01	.2161-01	.9000	.6283-03	.7579-03	.4770	3.876	538.5
173	.70000	.90000	371.00	.3568-02	.4299-02	.4299-02	.9000	.1252-03	.1508-03	.9556-01	.7378	534.2
173	.80000	.10000+00	373.00	.3698-01	.4465-01	.4465-01	.9000	.1297-02	.1566-02	.9787	7.446	543.0
173	.80000	.40000	374.00	.3008-01	.3630-01	.3630-01	.9000	.1055-02	.1273-02	.7988	5.751	540.5
173	.80000	.50000	375.00	.2991-01	.3610-01	.3610-01	.9000	.1049-02	.1266-02	.7945	5.456	540.4
173	.80000	.70000	376.00	.2574-01	.3106-01	.3106-01	.9000	.9028-03	.1089-02	.6841	5.455	539.9
173	.80000	.90000	377.00	.2103-01	.2536-01	.2536-01	.9000	.7376-03	.8894-03	.5608	4.323	537.4
173	.90000	.10000+00	378.00	.5050-01	.6103-01	.6103-01	.9000	.1771-02	.2141-02	1.333	9.570	545.0
173	.90000	.30000	379.00	.1903-01	.2296-01	.2296-01	.9000	.6677-03	.8052-03	.5072	3.716	538.0
173	.90000	.50000	380.00	.2972-02	.3579-02	.3579-02	.9000	.1042-03	.1255-03	.7971-01	.5580	533.0
173	.90000	.70000	381.00	.1291-01	.1556-01	.1556-01	.9000	.4529-03	.5457-03	.3454	2.510	535.0
173	.90000	.90000	382.00	.1824-01	.2199-01	.2199-01	.9000	.6399-03	.7714-03	.4870	3.655	536.6
173	.95000	.30000	383.00	.1797-01	.2167-01	.2167-01	.9000	.6303-03	.7600-03	.4794	3.424	537.1
173	.95000	.50000	384.00	.1724-01	.2079-01	.2079-01	.9000	.6047-03	.7292-03	.4598	3.263	537.3
173	.95000	.90000	385.00	.1819-01	.2193-01	.2193-01	.9000	.6381-03	.7691-03	.4862	3.296	535.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT18)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
89	3.018	7.990	40.02	-2 030	669.3	1317.	95.63	.6912-01	3.089	3830.	.1951-02	.7696-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
89	.4343-01	.2336-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
89	.10000+00	.10000+00	340.00	.2272-01	.2734-01	.2734-01	.9000	.9868-03	.1187-02	.7691	5.458	537.3
89	.10000+00	.30000	341 00	.1025-01	.1232-01	.1232-01	.9000	.4452-03	.5353-03	3485	2.559	533.9
89	.10000+00	.50000	342 00	.5807-02	.6976-02	.6976-02	.9000	.2522-03	.3030-03	1981	1.506	531.2
89	.20000	.10000+00	343.00	.1784-01	.2145-01	.2145-01	.9000	.7749-03	.9316-03	6069	4.385	533.5
89	.20000	.20000	344.00	.8241-02	.9900-02	.9900-02	.9000	.3579-03	.4300-03	2812	2.088	531.1
89	.20000	.40000	345.00	.4745-02	.5697-02	.5697-02	.9000	.2061-03	.2474-03	.1623	1.164	529.3
89	.20000	.60000	346 00	.2159-02	.2591-02	.2591-02	.9000	.9375-04	.1125-03	.7401-01	.5364	527.2
89	.20000	.80000	347 00	.1412-02	.1694-02	.1694-02	.9000	.6134-04	.7359-04	.4851-01	.3463	525.7
89	.30000	.50000-01	348 00	.1670-01	.2008-01	.2008-01	.9000	.7253-03	.8721-03	.5672	4.275	534.6
89	.30000	.20000	349 00	.8166-02	.9807-02	.9807-02	.9000	.3546-03	.4259-03	2790	2.020	529.8
89	.30000	.40000	350 00	.4254-02	.5106-02	.5106-02	.9000	.1848-03	.2218-03	1457	1.056	527.9
89	.30000	.50000	351 00	.2733-02	.3280-02	.3280-02	.9000	.1187-03	.1424-03	.9371-01	.6622	527.1
89	.30000	.90000	352 00	.2670-02	.3204-02	.3204-02	.9000	.1160-03	.1392-03	.9169-01	.6871	526.1
89	.40000	.10000+00	353 00	.2221-01	.2670-01	.2670-01	.9000	.9648-03	.1160-02	.7558	5.551	533.3
89	.40000	.20000	354 00	.2075-01	.2494-01	.2494-01	.9000	.9010-03	.1083-02	.7060	5.021	533.1
89	.40000	.50000	356 00	.8000-02	.9603-02	.9603-02	.9000	.3474-03	.4171-03	.2740	1.998	528.1
89	.40000	.90000	358 00	.3555-02	.4266-02	.4266-02	.9000	.1544-03	.1853-03	.1219	.9196	526.8
89	.50000	.50000-01	359 00	.5257 01	.6341-01	.6341-01	.9000	.2283-02	.2754-02	1.757	13.72	546.9
89	.50000	.70000	360 00	.7555-02	.9067-02	.9067-02	.9000	.3281-03	.3938-03	.2590	2.078	527.4
89	.50000	.90000	361 00	.5958-02	.7152-02	.7152-02	.9000	.2588-03	.3106-03	.2042	1.456	527.7
89	.60000	.50000-01	362 00	.4776-01	.5759-01	.5759-01	.9000	.2074-02	.2501-02	1.601	12.29	545.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2708

## OH84B 60-0 VERTICAL TAIL

(R4UT18)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
89	.60000	.10000+00	363.00	.4518-01	.5441-01	.5441-01	.9000	.1962-02	.2363-02	1.522	11.52	540.7
89	.60000	.20000	364.00	.4309-01	.5189-01	.5189-01	.9000	.1871-02	.2254-02	1.453	10.70	540.5
89	.60000	.40000	365.00	.4769-01	.5740-01	.5740-01	.9000	.2071-02	.2493-02	1.611	11.31	538.9
89	.60000	.50000	366.00	.4272-01	.5141-01	.5141-01	.9000	.1855-02	.2233-02	1.445	10.25	537.8
89	.60000	.70000	367.00	.1917-01	.2304-01	.2304-01	.9000	.8325-03	.1001-02	.6529	5.226	532.4
89	.60000	.90000	368.00	.1507-01	.1810-01	.1810-01	.9000	.6545-03	.7861-03	.5151	3.854	529.7
89	.70000	.50000-01	369.00	.3807-01	.4589-01	.4589-01	.9000	.1654-02	.1993-02	1.278	10.36	543.6
89	.70000	.70000	370.00	.2268-01	.2727-01	.2727-01	.9000	.9851-03	.1184-02	.7712	6.280	533.8
89	.70000	.90000	371.00	.6586-02	.7915-02	.7915-02	.9000	.2860-03	.3438-03	.2242	1.733	532.7
89	.80000	.10000+00	373.00	.3993-01	.4807-01	.4807-01	.9000	.1734-02	.2088-02	1.349	10.28	539.1
89	.80000	.40000	374.00	.2653-01	.3190-01	.3190-01	.9000	.1152-02	.1386-02	.9002	6.498	535.4
89	.80000	.50000	375.00	.2273-01	.2732-01	.2732-01	.9000	.9871-03	.1187-02	.7730	5.327	533.5
89	.80000	.70000	376.00	.1741-01	.2092-01	.2092-01	.9000	.7561-03	.9085-03	.5937	4.754	531.5
89	.80000	.90000	377.00	.1964-01	.2360-01	.2360-01	.9000	.8530-03	.1025-02	.6700	5.181	531.2
89	.90000	.10000+00	378.00	.6657-01	.8031-01	.8031-01	.9000	.2891-02	.3488-02	2.226	15.97	546.9
89	.90000	.30000	379.00	.2112-01	.2538-01	.2538-01	.9000	.9172-03	.1102-02	.7189	5.281	532.8
89	.90000	.50000	380.00	.3158-02	.3790-02	.3790-02	.9000	.1372-03	.1646-03	.1084	.7613	526.5
89	.90000	.70000	381.00	.9825-02	.1179-01	.1179-01	.9000	.4267-03	.5122-03	.3366	2.454	527.9
89	.90000	.90000	382.00	.1239-01	.1488-01	.1488-01	.9000	.5380-03	.6461-03	.4235	3.190	529.5
89	.95000	.30000	383.00	.2528-01	.3040-01	.3040-01	.9000	.1098-02	.1320-02	.8592	6.146	534.3
89	.95000	.50000	384.00	.1606-01	.1929-01	.1929-01	.9000	.6974-03	.8380-03	.5473	3.894	531.9
89	.95000	.90000	385.00	.1418-01	.1702-01	.1702-01	.9000	.6157-03	.7393-03	.4848	3.297	529.3



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2709

OH84B 60-0 VERTICAL TAIL

(R4UT20)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
191	.5026	7 900	39 96	-.9984	99.61	1247	92 47	.1107-01	.4836	3724.	.3231-03	.7441-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
191	.1702-01	.5707-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
191	10000+00	.10000+00	340.00	.2446-01	.2962-01	.2962-01	.9000	.4165-03	.5043-03	.2982	2.123	530.7
191	.10000+00	.30000	341.00	.6145-02	.7436-02	.7436-02	.9000	.1046-03	.1266-03	.7510-01	.5528	528.8
191	.10000+00	.50000	342.00	.5378-02	.6508-02	.6508-02	.9000	.9156-04	.1108-03	.6575-01	.5004	528.6
191	.20000	.10000+00	343.00	.1256-01	.1520-01	.1520-01	.9000	.2138-03	.2588-03	.1534	1.111	529.2
191	.20000	.20000	344.00	.6276-02	.7595-02	.7595-02	.9000	.1068-03	.1293-03	.7671-01	.5703	528.7
191	.20000	.40000	345.00	.3684-02	.4458-02	.4458-02	.9000	.6272-04	.7589-04	.4506-01	.3233	528.2
191	.20000	.60000	346 00	.2587-02	.3130-02	.3130-02	.9000	.4405-04	.5329-04	.3165-01	.2293	528.1
191	.20000	.80000	347 00	.1068-02	.1292-02	.1292-02	.9000	.1818-04	.2200-04	.1308-01	.9326-01	527.5
191	.30000	.50000-01	348.00	.7597-02	.9201-02	.9201-02	.9000	.1293-03	.1566-03	.9247-01	.6980	531.6
191	.30000	.20000	349 00	.2777-02	.3361-02	.3361-02	.9000	.4728-04	.5721-04	.3395-01	.2459	528 5
191	.30000	.40000	350 00	.1693-02	.2049-02	.2049-02	.9000	.2883-04	.3488-04	.2071-01	.1501	528 1
191	.30000	.50000	351.00	.1428-02	.1728-02	.1728-02	.9000	.2432-04	.2942-04	.1748-01	.1234	528 0
191	.30000	.90000	352 00	.3261-02	.3947-02	.3947-02	.9000	.5552-04	.6719-04	.3987-01	.2984	528 5
191	.40000	.10000+00	353 00	.4392-02	.5315-02	.5315-02	.9000	.7476-04	.9048-04	.5364-01	.3947	529 2
191	.40000	.20000	354.00	.2398-02	.2902-02	.2902-02	.9000	.4082-04	.4940-04	.2931-01	.2089	528 7
191	.40000	.50000	356 00	.1754-02	.2122-02	.2122-02	.9000	.2986-04	.3613-04	.2145-01	.1564	528 2
191	.40000	.90000	358 00	.4113-02	.4977-02	.4977-02	.9000	.7002-04	.8473-04	.5025-01	.3786	528.9
191	.50000	.50000-01	359 00	.2718-02	.3292-02	.3292-02	.9000	.4627-04	.5604-04	.3309-01	.2603	531.5
191	.50000	.70000	360 00	.1845-02	.2233-02	.2233-02	.9000	.3141-04	.3801-04	.2255-01	.1809	528.6
191	.50000	.90000	361 00	.4394-02	.5318-02	.5318-02	.9000	.7480-04	.9054-04	.5364-01	.3821	529 6
191	.60000	.50000-01	362 00	.4646-02	.5628-02	.5628-02	.9000	.7909-04	.9581-04	.5648-01	.4365	532.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT20)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDY DEG. R /SEC	TW DEG. R
191	.60000	.10000+00	363 00	.5715-02	.6922-02	.6922-02	.9000	.9729-04	.1178-03	.6957-01	.5287	531.6
191	.60000	.20000	364 00	.3856-02	.4668-02	.4668-02	.9000	.6565-04	.7948-04	.4703-01	.3482	530.2
191	.60000	.40000	365 00	.2160-02	.2614-02	.2614-02	.9000	.3677-04	.4449-04	.2640-01	.1864	528.7
191	.60000	.50000	366 00	.1688-02	.2042-02	.2042-02	.9000	.2873-04	.3476-04	.2064-01	.1472	528.1
191	.60000	.70000	367 00	.2354-02	.2848-02	.2848-02	.9000	.4008-04	.4849-04	.2879-01	.2309	528.3
191	.60000	.90000	368 00	.5735-02	.6940-02	.6940-02	.9000	.9762-04	.1181-03	.7008-01	.5245	528.8
191	.70000	.50000-01	369 00	.6522-02	.7903-02	.7903-02	.9000	.1110-03	.1345-03	.7921-01	.6452	533.3
191	.70000	.70000	370 00	.2494-02	.3018-02	.3018-02	.9000	.4246-04	.5139-04	.3048-01	.2488	528.8
191	.70000	.90000	371 00	.2055-02	.2488-02	.2488-02	.9000	.3498-04	.4236-04	.2504-01	.1936	530.9
191	.80000	.10000+00	373 00	.1357-01	.1644-01	.1644-01	.9000	.2310-03	.2799-03	.1647	1.259	533.4
191	.80000	.40000	374 00	.4733-02	.5731-02	.5731-02	.9000	.8058-04	.9757-04	.5770-01	.4175	530.7
191	.80000	.50000	375 00	.3503-02	.4241-02	.4241-02	.9000	.5964-04	.7219-04	.4274-01	.2951	530.0
191	.80000	.70000	376 00	.2499-02	.3025-02	.3025-02	.9000	.4254-04	.5150-04	.3050-01	.2444	529.8
191	.80000	.90000	377 00	.6687-02	.8096-02	.8096-02	.9000	.1138-03	.1378-03	.8154-01	.6308	530.4
191	.90000	.10000+00	378 00	.2065-01	.2504-01	.2504-01	.9000	.3515-03	.4262-03	.2500	1.805	535.4
191	.90000	.30000	379 00	.1090-01	.1320-01	.1320-01	.9000	.1855-03	.2248-03	.1325	.9732	532.6
191	.90000	.50000	380 00	.1698-02	.2054-02	.2054-02	.9000	.2890-04	.3497-04	.2077-01	.1458	528.2
191	.90000	.70000	381 00	.4369-02	.5289-02	.5289-02	.9000	.7438-04	.9004-04	.5332-01	.3884	529.8
191	.90000	.90000	382 00	.8053-02	.9751-02	.9751-02	.9000	.1371-03	.1660-03	.9811-01	.7383	531.0
191	.95000	.30000	383 00	.1232-01	.1492-01	.1492-01	.9000	.2097-03	.2540-03	.1499	1.074	531.8
191	.95000	.50000	384 00	.6300-02	.7629-02	.7629-02	.9000	.1072-03	.1299-03	.7673-01	.5462	531.2
191	.95000	.90000	385 00	.1090-01	.1320-01	.1320-01	.9000	.1856-03	.2248-03	.1327	.9015	531.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2711

OH84B 60-0 VERTICAL TAIL

(R4UT21)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
192	.5105	7.900	39.99	-1.007	101.0	1246.	92.40	.1123-01	.4906	3723.	.3281-03	.7435-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
192	.1714-01	.5663-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
192	.10000+00	.10000+00	340.00	.2392-01	.2894-01	.2894-01	.9000	.4101-03	.4961-03	2944	2.099	527.8
192	.10000+00	.30000	341.00	.6373-02	.7708-02	.7708-02	.9000	.1093-03	.1321-03	.7862-01	.5795	526.1
192	.10000+00	.50000	342.00	.5748-02	.6950-02	.6950-02	.9000	.9854-04	.1191-03	.7095-01	.5408	525.7
192	.20000	.10000+00	343.00	.1256-01	.1518-01	.1518-01	.9000	.2153-03	.2603-03	.1551	1.125	525.2
192	.20000	.20000	344.00	.6514-02	.7875-02	.7875-02	.9000	.1117-03	.1350-03	.8049-01	.5995	525.0
192	.20000	.40000	345.00	.3957-02	.4796-02	.4796-02	.9000	.6802-04	.8222-04	.4905-01	.3526	524.5
192	.20000	.60000	346.00	.2977-02	.3598-02	.3598-02	.9000	.5103-04	.6168-04	.3683-01	.2674	523.9
192	.20000	.80000	347.00	.1255-02	.1516-02	.1516-02	.9000	.2152-04	.2600-04	.1555-01	.1111	523.1
192	.30000	.50000-01	348.00	.7669-02	.9276-02	.9276-02	.9000	.1315-03	.1590-03	.9453-01	.7154	526.7
192	.30000	.20000	349.00	.3148-02	.3805-02	.3805-02	.9000	.5397-04	.6523-04	.3695-01	.2828	524.0
192	.30000	.40000	350.00	.1682-02	.2032-02	.2032-02	.9000	.2883-04	.3484-04	.2082-01	.1512	523.6
192	.30000	.50000	351.00	.1804-02	.2180-02	.2180-02	.9000	.3093-04	.3738-04	.2234-01	.1582	523.3
192	.30000	.90000	352.00	.3207-02	.3875-02	.3875-02	.9000	.5498-04	.6644-04	.3969-01	.2978	523.7
192	.40000	.10000+00	353.00	.4131-02	.4993-02	.4993-02	.9000	.7083-04	.8561-04	.5110-01	.3770	524.2
192	.40000	.20000	354.00	.2525-02	.3051-02	.3051-02	.9000	.4328-04	.5231-04	.3124-01	.2233	523.8
192	.40000	.50000	356.00	.1563-02	.1889-02	.1889-02	.9000	.2680-04	.3239-04	.1935-01	.1415	523.5
192	.40000	.90000	358.00	.4056-02	.4903-02	.4903-02	.9000	.6954-04	.8405-04	.5020-01	.3792	523.8
192	.50000	.50000-01	359.00	.3030-02	.3664-02	.3664-02	.9000	.5194-04	.6281-04	.3737-01	.2948	526.1
192	.50000	.70000	360.00	.2030-02	.2454-02	.2454-02	.9000	.3481-04	.4207-04	.2513-01	.2020	523.8
192	.50000	.90000	361.00	.5011-02	.6057-02	.6057-02	.9000	.8591-04	.1038-03	.6197-01	.4427	524.4
192	.60000	.50000-01	362.00	.4853-02	.5871-02	.5871-02	.9000	.8320-04	.1006-03	.5979-01	.4633	527.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT21)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
192	.60000	.10000+00	363.00	5571-02	.6738-02	.6738-02	.9000	.9551-04	.1155-03	.6871-01	.5236	526.3
192	.60000	.20000	364.00	4139-02	5004-02	.5004-02	.9000	.7096-04	.8579-04	.5114-01	.3796	525.1
192	.60000	.40000	365.00	2307-02	.2789-02	2789-02	.9000	.3956-04	.4781-04	.2856-01	.2022	523.7
192	.60000	.50000	366.00	1780-02	.2151-02	2151-02	.9000	.3051-04	.3687-04	.2204-01	.1576	523.2
192	.60000	.70000	367.00	2401-02	2902-02	.2902-02	.9000	.4117-04	.4974-04	.2974-01	.2391	523.3
192	.60000	.90000	368.00	5619-02	6789-02	6789-02	.9000	.9633-04	.1164-03	.6959-01	.5223	523.2
192	.70000	50000-01	369.00	7103-02	.8593-02	.8593-02	.9000	.1218-03	.1473-03	8745-01	7145	527.5
192	.70000	.70000	370.00	.2767-02	3344-02	3344-02	.9000	.4744-04	.5732-04	.3428-01	.2807	523.1
192	.70000	.90000	371.00	2239-02	2710-02	2710-02	.9000	.3839-04	.4647-04	2751-01	.2130	529.0
192	.80000	.10000+00	373.00	1322-01	.1600-01	1600-01	.9000	.2267-03	.2742-03	1628	1.249	527.3
192	.80000	.40000	374.00	.5055-02	.6111-02	6111-02	.9000	.8666-04	.1048-03	.6247-01	.4534	524.8
192	.80000	.50000	375.00	.3774-02	.4561-02	.4561-02	.9000	.6470-04	.7820-04	.4669-01	.3234	524.0
192	.80000	.70000	376.00	.2828-02	.3417-02	3417-02	.9000	.4848-04	.5858-04	3501-01	.2815	523.4
192	.80000	.90000	377.00	6885-02	.8321-02	.8321-02	.9000	.1180-03	.1427-03	8519-01	.6612	523.9
192	.90000	10000+00	378.00	1981-01	.2398-01	.2398-01	.9000	.3397-03	.4111-03	.2437	1.765	528.4
192	.90000	.30000	379.00	1077-01	.1302-01	.1302-01	.9000	.1846-03	.2233-03	.1329	.9796	526.0
192	.90000	.50000	380.00	1909-02	2307-02	.2307-02	.9000	.3273-04	.3955-04	.2363-01	.1663	523.5
192	.90000	.70000	381.00	4131-02	.4992-02	.4992-02	.9000	.7083-04	.8558-04	.5118-01	.3742	523.0
192	.90000	.90000	382.00	7363-02	8900-02	8900-02	.9000	1262-03	1526-03	9109-01	.6879	524.1
192	.95000	.30000	383.00	.1183-01	.1430-01	.1430-01	.9000	2028-03	2452-03	1462	1.051	525.0
192	.95000	.50000	384.00	.6525-02	.7887-02	.7887-02	.9000	1119-03	.1352-03	.8069-01	.5764	524.3
192	.95000	.90000	385.00	.1208-01	.1460-01	.1460-01	.9000	.2071-03	2503-03	.1494	1.019	524.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT21)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
179	1.009	7.940	39.99	-1.007	205 6	1259	92.49	.2212-01	.9760	3743.	.6454-03	.7443-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
179	.2422-01	.4042-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
179	.10000+00	.10000+00	340.00	.1789-01	.2166-01	.2166-01	.9000	.4334-03	.5246-03	.3136	2.228	535.0
179	.10000+00	.30000	341 00	.7246-02	.8770-02	.8770-02	.9000	.1755-03	.2124-03	.1272	.9338	534.0
179	.10000+00	.50000	342.00	.5867-02	.7100-02	.7100-02	.9000	.1421-03	.1720-03	.1030	.7823	533.7
179	.20000	.10000+00	343 00	.1565-01	.1894-01	.1894-01	.9000	.3792-03	.4589-03	.2748	1.985	533.9
179	.20000	.20000	344 00	.7407-02	.8962-02	.8962-02	.9000	.1794-03	.2171-03	.1301	.9650	533.4
179	.20000	.40000	345 00	.5292-02	.6403-02	.6403-02	.9000	.1282-03	.1551-03	.9305-01	.6661	532.8
179	.20000	.60000	346 00	.3865-02	.4675-02	.4675-02	.9000	.9363-04	.1132-03	.6801-01	.4916	532.3
179	.20000	.80000	347 00	.1909-02	.2308-02	.2308-02	.9000	.4624-04	.5592-04	.3362-01	.2392	531.7
179	.30000	.50000-01	348 00	.1265-01	.1532-01	.1532-01	.9000	.3065-03	.3711-03	.2218	1.671	535.0
179	.30000	.20000	349 00	.6475-02	.7834-02	.7834-02	.9000	.1568-03	.1898-03	.1138	.8222	533.2
179	.30000	.40000	350 00	.4487-02	.5428-02	.5428-02	.9000	.1087-03	.1315-03	.7894-01	.5706	532.5
179	.30000	.50000	351 00	.3758-02	.4546-02	.4546-02	.9000	.9104-04	.1101-03	.6615-01	.4662	532.1
179	.30000	.90000	352 00	.3200-02	.3869-02	.3869-02	.9000	.7751-04	.9373-04	.5636-01	.4212	531.5
179	.40000	.10000+00	353 00	.4268-02	.5162-02	.5162-02	.9000	.1034-03	.1250-03	.7507-01	.5516	532.4
179	.40000	.20000	354 00	.3259-02	.3942-02	.3942-02	.9000	.7894-04	.9548-04	.5735-01	.4081	532.1
179	.40000	.50000	355 00	.2504-02	.3028-02	.3028-02	.9000	.6065-04	.7334-04	.4410-01	.3210	531.5
179	.40000	.90000	358 00	.4867-02	.5886-02	.5886-02	.9000	.1179-03	.1426-03	.8567-01	.6444	532.0
179	.50000	.50000-01	359 00	.3902-02	.4722-02	.4722-02	.9000	.9453-04	.1144-03	.6855-01	.5387	533.5
179	.50000	.70000	360 00	.2925-02	.3537-02	.3537-02	.9000	.7085-04	.8569-04	.5149-01	.4122	531.9
179	.50000	.90000	361 00	.5444-02	.6586-02	.6586-02	.9000	.1319-03	.1595-03	.9576-01	.6812	532.5
179	.60000	.50000-01	362 00	.7046-02	.8529-02	.8529-02	.9000	.1707-03	.2066-03	.1235	.9533	534.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT21)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
179	.60000	.10000+00	363.00	.7054-02	.8537-02	.8537-02	.9000	.1709-03	.2068-03	.1238	.9394	534.3
179	.60000	.20000	364.00	.4849-02	.5867-02	.5867-02	.9000	.1175-03	.1421-03	.8522-01	.6300	533.2
179	.60000	.40000	365.00	.3277-02	.3963-02	.3963-02	.9000	.7938-04	.9600-04	.5772-01	.4070	531.5
179	.60000	.50000	366.00	.2464-02	.2979-02	.2979-02	.9000	.5968-04	.7216-04	.4343-01	.3092	531.0
179	.60000	.70000	367.00	.2676-02	.3235-02	.3235-02	.9000	.6481-04	.7837-04	.4715-01	.3776	531.2
179	.60000	.90000	368.00	.5374-02	.6499-02	.6499-02	.9000	.1302-03	.1574-03	.9468-01	.7076	531.4
179	.70000	.50000-01	369.00	.1151-01	.1394-01	.1394-01	.9000	.2788-03	.3376-03	.2016	1.640	535.6
179	.70000	.70000	370.00	.2849-02	.3446-02	.3446-02	.9000	.6902-04	.8347-04	.5019-01	.4092	531.5
179	.70000	.90000	371.00	.1958-02	.2369-02	.2369-02	.9000	.4744-04	.5738-04	.3445-01	.2662	532.4
179	.80000	.10000+00	373.00	.1969-01	.2384-01	.2384-01	.9000	.4770-03	.5775-03	.3448	2.633	535.7
179	.80000	.40000	374.00	.8539-02	.1033-01	.1033-01	.9000	.2069-03	.2503-03	.1500	1.084	533.5
179	.80000	.50000	375.00	.6414-02	.7760-02	.7760-02	.9000	.1554-03	.1880-03	.1127	.7768	533.2
179	.80000	.70000	376.00	.4634-02	.5606-02	.5606-02	.9000	.1123-03	.1358-03	.8150-01	.6522	532.7
179	.80000	.90000	377.00	.6382-02	.7720-02	.7720-02	.9000	.1546-03	.1870-03	.1122	.8671	532.7
179	.90000	.10000+00	378.00	.3603-01	.4365-01	.4365-01	.9000	.8727-03	.1057-02	.6291	4.535	537.8
179	.90000	.30000	379.00	.1613-01	.1953-01	.1953-01	.9000	.3908-03	.4730-03	.2830	2.077	534.6
179	.90000	.50000	380.00	.2870-02	.3471-02	.3471-02	.9000	.6952-04	.8407-04	.5055-01	.3542	531.5
179	.90000	.70000	381.00	.6826-02	.8258-02	.8258-02	.9000	.1654-03	.2000-03	.1200	.8732	532.8
179	.90000	.90000	382.00	.9368-02	.1133-01	.1133-01	.9000	.2269-03	.2745-03	.1647	1.238	532.8
179	.95000	.30000	383.00	.1952-01	.2363-01	.2363-01	.9000	.4728-03	.5723-03	.3424	2.449	534.6
179	.95000	.50000	384.00	.1233-01	.1492-01	.1492-01	.9000	.2986-03	.3614-03	.2164	1.538	534.1
179	.95000	.90000	385.00	.1270-01	.1537-01	.1537-01	.9000	.3077-03	.3723-03	.2232	1.515	533.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT21)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
167	2.003	7.980	40.01	-1.009	434.6	1301.	94.69	.4525-01	2.017	3807.	.1290-02	.7620-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
167	.3502-01	.2869-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
167	.10000+00	.10000+00	340.00	.1761-01	.2122-01	.2122-01	.9000	.6167-03	.7430-03	.4717	3.350	535.8
167	.10000+00	.30000	341.00	.8031-02	.9671-02	.9671-02	.9000	.2813-03	.3387-03	.2157	1.584	533.6
167	.10000+00	.50000	342.00	.9381-02	.1130-01	.1130-01	.9000	.3285-03	.3956-03	.2522	1.915	533.1
167	.20000	.10000+00	343.00	.1840-01	.2217-01	.2217-01	.9000	.6444-03	.7763-03	.4932	3.561	535.3
167	.20000	.30000	344.00	.7722-02	.9296-02	.9296-02	.9000	.2704-03	.3256-03	.2078	1.542	532.4
167	.20000	.40000	345.00	.4368-02	.5255-02	.5255-02	.9000	.1530-03	.1841-03	.1178	.8439	530.8
167	.20000	.60000	346.00	.2668-02	.3209-02	.3209-02	.9000	.9343-04	.1124-03	.7210-01	.5221	529.0
167	.20000	.80000	347.00	.3597-02	.4325-02	.4325-02	.9000	.1260-03	.1515-03	.9724-01	.6931	528.7
167	.30000	.50000	348.00	.1450-01	.1747-01	.1747-01	.9000	.5078-03	.6118-03	.3887	2.929	535.2
167	.30000	.20000	349.00	.4174-02	.5023-02	.5023-02	.9000	.1462-03	.1759-03	.1126	.8145	530.7
167	.30000	.40000	350.00	.2295-02	.2760-02	.2760-02	.9000	.8036-04	.9665-04	.6201-01	.4491	529.0
167	.30000	.50000	351.00	.2227-02	.2678-02	.2678-02	.9000	.7798-04	.9378-04	.6021-01	.4252	528.6
167	.30000	.90000	352.00	.4759-02	.5723-02	.5723-02	.9000	.1667-03	.2004-03	.1287	.9633	528.5
167	.40000	.10000+00	353.00	.8795-02	.1058-01	.1058-01	.9000	.3080-03	.3707-03	.2369	1.742	531.5
167	.40000	.20000	354.00	.5365-02	.6455-02	.6455-02	.9000	.1879-03	.2261-03	.1448	1.031	530.2
167	.40000	.50000	356.00	.3178-02	.3822-02	.3822-02	.9000	.1113-03	.1338-03	.8594-01	.6265	528.5
167	.40000	.90000	358.00	.5277-02	.6345-02	.6345-02	.9000	.1848-03	.2222-03	.1427	1.076	528.3
167	.50000	.50000-01	359.00	.2109-01	.2542-01	.2542-01	.9000	.7385-03	.8902-03	.5637	4.421	537.4
167	.50000	.70000	360.00	.2699-02	.3246-02	.3246-02	.9000	.9454-04	.1137-03	.7303-01	.5858	528.2
167	.50000	.90000	361.00	.5264-02	.6331-02	.6331-02	.9000	.1844-03	.2217-03	.1423	1.014	529.0
167	.60000	.50000-01	362.00	.4020-01	.4855-01	.4855-01	.9000	.1408-02	.1700-02	1.065	8.185	543.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT21)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
167	.60000	.10000+00	363.00	.4019-01	.4848-01	.4848-01	.9000	.1407-02	.1698-02	1.070	8.100	540.2
167	.60000	.20000	364.00	.2626-01	.3164-01	.3164-01	.9000	.9196-03	.1108-02	.7030	5.189	536.3
167	.60000	.40000	365.00	.1420-01	.1709-01	.1709-01	.9000	.4973-03	.5985-03	.3827	2.698	531.3
167	.60000	.50000	366.00	.8964-02	.1078-01	.1078-01	.9000	.3139-03	.3777-03	.2420	1.724	529.9
167	.60000	.70000	367.00	.3056-02	.3674-02	.3674-02	.9000	.1070-03	.1287-03	.8270-01	.6634	527.9
167	.60000	.90000	368.00	.5856-02	.7041-02	.7041-02	.9000	.2051-03	.2466-03	.1585	1.187	527.9
167	.70000	.50000-01	369.00	.5052-01	.6106-01	.6106-01	.9000	.1769-02	.2138-02	1.333	10.78	547.3
167	.70000	.70000	370.00	.5398-02	.6492-02	.6492-02	.9000	.1890-03	.2274-03	.1459	1.191	529.1
167	.70000	.90000	371.00	.2573-02	.3097-02	.3097-02	.9000	.9012-04	.1085-03	.6925-01	5352	532.2
167	.80000	.50000-01	372.00	.2335-02	.3174-02	.3174-02	.9000	.8179-04	.1111-03	.4028-01	2730	808.2
167	.80000	.10000+00	373.00	.5662-01	.6836-01	.6836-01	.9000	.1983-02	.2394-02	1.502	11.42	543.3
167	.80000	.40000	374.00	.3832-01	.4623-01	.4623-01	.9000	.1342-02	.1619-02	1.021	7.353	539.9
167	.80000	.50000	375.00	.2766-01	.3333-01	.3333-01	.9000	.9687-03	.1167-02	.7405	5.096	536.2
167	.80000	.70000	376.00	.1243-01	.1496-01	.1496-01	.9000	.4353-03	.5240-03	.3346	2.678	532.1
167	.80000	.90000	377.00	.1172-01	.1410-01	.1410-01	.9000	.4105-03	.4939-03	.3159	2.443	531.0
167	.90000	.10000+00	378.00	.7059-01	.8532-01	.8532-01	.9000	.2472-02	.2988-02	1.863	13.37	547.0
167	.90000	.30000	379.00	.3719-01	.4484-01	.4484-01	.9000	.1302-02	.1570-02	.9927	7.272	538.5
167	.90000	.50000	380.00	.3563-02	.4284-02	.4284-02	.9000	.1248-03	.1500-03	.9640-01	6766	528.1
167	.90000	.70000	381.00	.1586-01	.1909-01	.1909-01	.9000	.5554-03	.6685-03	.4268	3.106	532.1
167	.90000	.90000	382.00	.1750-01	.2107-01	.2107-01	.9000	.6130-03	.7381-03	.4703	3.535	533.4
167	.95000	.30000	383.00	.3344-01	.4031-01	.4031-01	.9000	.1171-02	.1412-02	.8935	6.381	537.6
167	.95000	.50000	384.00	.3240-01	.3905-01	.3905-01	.9000	.1135-02	.1368-02	.8655	6.141	537.8
167	.95000	.90000	385.00	.2226-01	.2680-01	.2680-01	.9000	.7795-03	.9385-03	.5983	4.062	533.1



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT21)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
85	3.028	7.990	40 08	-1.034	670.0	1315.	95.49	.6919-01	3.092	3827.	.1956-02	.7684-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = .0175
85	.4344-01	.2333-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
85	.10000+00	.10000+00	340.00	.2163-01	.2603-01	.2603-01	.9000	.9398-03	.1131-02	.7312	5.191	536.6
85	.10000+00	.30000	341 00	.1033-01	.1241-01	.1241-01	.9000	.4485-03	.5393-03	.3504	2.573	533.5
85	.10000+00	.50000	342.00	.5633-02	.6768-02	.6768-02	.9000	.2447-03	.2940-03	.1918	1.458	530.9
85	.20000	.10000+00	343.00	.1694-01	.2037-01	.2037-01	.9000	.7360-03	.8849-03	.5749	4.154	533.5
85	.20000	.20000	344 00	.7492-02	.9004-02	.9004-02	.9000	.3255-03	.3912-03	.2549	1.893	531.5
85	.20000	.40000	345 00	.4893-02	.5877-02	.5877-02	.9000	.2126-03	.2553-03	.1669	1.197	529.3
85	.20000	.60000	346 00	.2115-02	.2538-02	.2538-02	.9000	.9186-04	.1103-03	.7232-01	.5242	527.4
85	.20000	.80000	347 00	.1224-02	.1468-02	.1468-02	.9000	.5316-04	.6379-04	.4193-01	.2993	525.9
85	.30000	.50000-01	348 00	.1469-01	.1767-01	.1767-01	.9000	.6381-03	.7676-03	.4974	3.748	535.2
85	.30000	.20000	349 00	.6488-02	.7794-02	.7794-02	.9000	.2818-03	.3386-03	.2211	1.600	530.2
85	.30000	.40000	350.00	.2913-02	.3497-02	.3497-02	.9000	.1265-03	.1519-03	.9952-01	.7210	528.1
85	.30000	.50000	351 00	.1844-02	.2214-02	.2214-02	.9000	.8012-04	.9617-04	.6310-01	.4459	527.1
85	.30000	.90000	352 00	.2596-02	.3116-02	.3116-02	.9000	.1128-03	.1354-03	.8891-01	.6662	526.4
85	.40000	.10000+00	353 00	.1477-01	.1775-01	.1775-01	.9000	.6417-03	.7713-03	.5021	3.689	532.2
85	.40000	.20000	354 00	.1228-01	.1476-01	.1476-01	.9000	.5335-03	.6411-03	.4179	2.975	531.3
85	.40000	.50000	356 00	.4509-02	.5413-02	.5413-02	.9000	.1959-03	.2352-03	.1542	1.125	527.5
85	.40000	.90000	358 00	.3846-02	.4617-02	.4617-02	.9000	.1671-03	.2006-03	.1317	.9929	526.8
85	.50000	.50000-01	359 00	.4724-01	.5698-01	.5698-01	.9000	.2052-02	.2475-02	1.578	12.33	545.6
85	.50000	.70000	360.00	.4098-02	.4919-02	.4919-02	.9000	.1780-03	.2137-03	.1402	1.125	527.2
85	.50000	.90000	361 00	.5286-02	.6347-02	.6347-02	.9000	.2297-03	.2757-03	.1807	1.289	527.7
85	.60000	.50000-01	362 00	.5344-01	.6449-01	.6449-01	.9000	.2322-02	.2802-02	1.782	13.67	547.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT21)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
85	.60000	.10000+00	363.00	.5073-01	.6115-01	.6115-01	.9000	.2204-02	.2657-02	1.701	12.85	542.8
85	.60000	.20000	364.00	.4836-01	.5829-01	.5829-01	.9000	.2101-02	.2532-02	1.622	11.94	542.5
85	.60000	.40000	365.00	.4509-01	.5428-01	.5428-01	.9000	.1959-02	.2358-02	1.521	10.68	538.4
85	.60000	.50000	366.00	.3599-01	.4330-01	.4330-01	.9000	.1564-02	.1881-02	1.218	8.648	535.9
85	.60000	.70000	367.00	.1032-01	.1240-01	.1240-01	.9000	.4483-03	.5385-03	.3520	2.822	529.5
85	.60000	.90000	368.00	.8173-02	.9811-02	.9811-02	.9000	.3550-03	.4262-03	.2795	2.093	527.4
85	.70000	.50000-01	369.00	.4568-01	.5511-01	.5511-01	.9000	.1984-02	.2394-02	1.525	12.34	546.2
85	.70000	.70000	370.00	.2045-01	.2459-01	.2459-01	.9000	.8884-03	.1068-02	.6941	5.653	533.4
85	.70000	.90000	371.00	.5473-02	.6578-02	.6578-02	.9000	.2378-03	.2858-03	.1860	1.438	532.2
85	.80000	.50000-01	372.00	.2663-02	.3382-02	.3382-02	.9000	.1157-03	.1469-03	.7155-01	.5104	696.2
85	.80000	.10000+00	373.00	.5099-01	.6144-01	.6144-01	.9000	.2215-02	.2669-02	1.711	13.02	542.3
85	.80000	.40000	374.00	.2859-01	.3440-01	.3440-01	.9000	.1242-02	.1494-02	.9661	6.969	536.7
85	.80000	.50000	375.00	.2739-01	.3293-01	.3293-01	.9000	.1189-02	.1431-02	.9262	6.375	535.9
85	.80000	.70000	376.00	.2263-01	.2722-01	.2722-01	.9000	.9831-03	.1182-02	.7673	6.135	534.2
85	.80000	.90000	377.00	.2178-01	.2618-01	.2618-01	.9000	.9463-03	.1138-02	.7400	5.717	532.7
85	.90000	.10000+00	378.00	.7204-01	.8696-01	.8696-01	.9000	.3130-02	.3778-02	2.398	17.20	548.3
85	.90000	.30000	379.00	.2750-01	.3309-01	.3309-01	.9000	.1195-02	.1437-02	.9306	6.826	535.8
85	.90000	.50000	380.00	.2835-02	.3403-02	.3403-02	.9000	.1232-03	.1478-03	.9708-01	.6819	526.6
85	.90000	.70000	381.00	.1006-01	.1208-01	.1208-01	.9000	.4368-03	.5247-03	.3432	2.501	529.2
85	.90000	.90000	382.00	.1409-01	.1694-01	.1694-01	.9000	.6122-03	.7357-03	.4794	3.606	531.7
85	.95000	.30000	383.00	.3191-01	.3841-01	.3841-01	.9000	.1386-02	.1669-02	1.076	7.683	538.2
85	.95000	.50000	384.00	.1924-01	.2313-01	.2313-01	.9000	.8357-03	.1005-02	.6531	4.645	533.1
85	.95000	.90000	385.00	.1538-01	.1848-01	.1848-01	.9000	.6681-03	.8027-03	.5238	3.560	530.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2719

OH84B 60-0 VERTICAL TAIL

(R4UT22)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
16	.5159	7.900	40 01	-.3149-02	102.0	1245.	92.32	.1134-01	.4952	3721.	.3314-03	.7429-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
16	.1722-01	.5634-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
16	.10000+00	.10000+00	340.00	.1572-01	.1904-01	.1904-01	.9000	.2708-03	.3278-03	.1937	1.380	529.5
16	.10000+00	30000	341.00	.6558-02	.7937-02	.7937-02	.9000	.1129-03	.1367-03	.8093-01	.5959	528.1
16	.10000+00	50000	342.00	.3957-02	.4788-02	.4788-02	.9000	.6815-04	.8245-04	.4891-01	.3726	527.0
16	.20000	.10000+00	343 00	.7644-02	.9246-02	.9246-02	.9000	.1316-03	.1592-03	.9454-01	.6855	526.5
16	.20000	.20000	344.00	.3561-02	.4307-02	.4307-02	.9000	.6133-04	.7417-04	.4409-01	.3282	525.8
16	.20000	.40000	345 00	.2687-02	.3250-02	.3250-02	.9000	.4628-04	.5596-04	.3329-01	.2392	525.3
16	.20000	.60000	346.00	.2056-02	.2486-02	.2486-02	.9000	.3541-04	.4281-04	.2550-01	.1851	524.4
16	.20000	.80000	347.00	.1471-02	.1778-02	.1778-02	.9000	.2533-04	.3061-04	.1827-01	.1306	523 3
16	.30000	.50000-01	348 00	.5539-02	.6702-02	.6702-02	.9000	.9540-04	.1154-03	.6845-01	.5179	527.1
16	.30000	.20000	349.00	.2562-02	.3097-02	.3097-02	.9000	.4412-04	.5334-04	.3176-01	.2305	524 7
16	.30000	.40000	350.00	.2043-02	.2470-02	.2470-02	.9000	.3519-04	.4254-04	.2536-01	.1841	524.1
16	.30000	.50000	351 00	.2107-02	.2547-02	.2547-02	.9000	.3629-04	.4386-04	.2616-01	.1852	523.7
16	.30000	.90000	352 00	.3409-02	.4120-02	.4120-02	.9000	.5871-04	.7095-04	.4235-01	.3178	523 3
16	.40000	.10000+00	353 00	.5647-02	.6828-02	.6828-02	.9000	.9725-04	.1176-03	.7001-01	.5164	524 8
16	.40000	.20000	354.00	.3126-02	.3779-02	.3779-02	.9000	.5384-04	.6508-04	.3878-01	.2771	524.2
16	.40000	.40000	355 00	.1180-08	.1337-08	.1337-08	.9000	.2032-10	.2302-10	.2151-07	.1858-06	185.9
16	.40000	.50000	356 00	.2339-02	.2828-02	.2828-02	.9000	.4029-04	.4869-04	.2905-01	.2123	523 6
16	.40000	.90000	358 00	.4279-02	.5172-02	.5172-02	.9000	.7369-04	.8907-04	.5315-01	.4015	523 5
16	.50000	.50000-01	359 00	.7294-02	.8826-02	.8826-02	.9000	.1256-03	.1520-03	.9012-01	.7105	527.3
16	.50000	.70000	360 00	.2715-02	.3281-02	.3281-02	.9000	.4676-04	.5650-04	.3374-01	.2713	523 1
16	.50000	.90000	361 00	.5901-02	.7133-02	.7133-02	.9000	.1016-03	.1228-03	.7325-01	.5233	524 0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2720

## OH84B 60-0 VERTICAL TAIL

(R4UT22)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
16	.60000	.50000-01	362.00	.1125-01	.1362-01	.1362-01	.9000	.1938-03	.2345-03	.1389	1.076	527.7
16	60000	.10000+00	363.00	.9568-02	.1157-01	.1157-01	.9000	.1648-03	.1993-03	.1183	.9011	526.8
16	.60000	.20000	364.00	.5167-02	.6247-02	.6247-02	.9000	.8898-04	.1076-03	.6402-01	.4753	525.1
16	60000	.40000	365.00	.2680-02	.3239-02	.3239-02	.9000	.4615-04	.5578-04	.3328-01	.2356	523.6
16	60000	.50000	366.00	.2118-02	.2559-02	.2559-02	.9000	.3647-04	.4407-04	.2632-01	.1881	523.1
16	60000	.70000	367.00	.3226-02	.3898-02	.3898-02	.9000	.5555-04	.6713-04	.4008-01	.3223	523.1
16	.60000	.90000	368.00	.6514-02	.7871-02	.7871-02	.9000	.1122-03	.1355-03	.8098-01	.6079	522.8
16	70000	.50000-01	369.00	.1459-01	.1766-01	.1766-01	.9000	.2513-03	.3041-03	.1801	1.471	527.9
16	70000	.70000	370.00	.3419-02	.4131-02	.4131-02	.9000	.5888-04	.7114-04	.4250-01	.3480	522.9
16	.70000	.90000	371.00	.3975-02	.4809-02	.4809-02	.9000	.6845-04	.8282-04	.4909-01	.3803	527.5
16	.80000	.10000+00	373.00	.1806-01	.2184-01	.2184-01	.9000	.3109-03	.3762-03	.2232	1.712	526.9
16	80000	.40000	374.00	.4501-02	.5441-02	.5441-02	.9000	.7752-04	.9370-04	.5586-01	.4055	524.1
16	.80000	.50000	375.00	.3255-02	.3934-02	.3934-02	.9000	.5606-04	.6776-04	.4043-01	.2801	523.5
16	80000	.70000	376.00	.3656-02	.4418-02	.4418-02	.9000	.6296-04	.7609-04	.4544-01	.3654	523.1
16	80000	.90000	377.00	.7098-02	.8578-02	.8578-02	.9000	.1222-03	.1477-03	.8818-01	.6846	523.3
16	90000	.10000+00	378.00	.2593-01	.3137-01	.3137-01	.9000	.4465-03	.5402-03	.3203	2.322	527.2
16	.90000	.30000	379.00	.8879-02	.1074-01	.1074-01	.9000	.1529-03	.1849-03	.1101	.8121	524.7
16	90000	.50000	380.00	.2620-02	.3167-02	.3167-02	.9000	.4512-04	.5454-04	.3254-01	.2290	523.4
16	90000	.70000	381.00	.4684-02	.5659-02	.5659-02	.9000	.8066-04	.9746-04	.5825-01	.4260	522.5
16	.90000	.90000	382.00	.8217-02	.9931-02	.9931-02	.9000	.1415-03	.1710-03	.1021	.7711	523.4
16	.95000	.30000	383.00	.1029-01	.1244-01	.1244-01	.9000	.1772-03	.2143-03	.1276	.9176	524.5
16	.95000	.50000	384.00	.5254-02	.6350-02	.6350-02	.9000	.9049-04	.1094-03	.6525-01	.4663	523.5
16	.95000	.90000	385.00	.1046-01	.1264-01	.1264-01	.9000	.1801-03	.2177-03	.1298	.8854	523.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT22)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
32	1.002	7.940	40.01	-1.050-02	205.9	1266.	93.00	.2215-01	.9775	3754.	.6428-03	.7484-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
32	.2427-01	.4053-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
32	.10000+00	.10000+00	340.00	.2128-01	.2569-01	.2569-01	.9000	.5163-03	.6234-03	.3805	2.712	528.8
32	.10000+00	.30000	341.00	.7810-02	.9424-02	.9424-02	.9000	.1895-03	.2287-03	.1401	1.033	526.3
32	.10000+00	.50000	342.00	.5366-02	.6473-02	.6473-02	.9000	.1302-03	.1571-03	.9636-01	.7345	525.6
32	.20000	.10000+00	343.00	.1383-01	.1669-01	.1669-01	.9000	.3356-03	.4050-03	.2480	1.798	526.8
32	.20000	.20000	344.00	.6929-02	.8359-02	.8359-02	.9000	.1681-03	.2028-03	.1244	.9258	526.0
32	.20000	.40000	345.00	.4636-02	.5591-02	.5591-02	.9000	.1125-03	.1357-03	.8338-01	.5992	524.6
32	.20000	.60000	346 00	.3528-02	.4253-02	.4253-02	.9000	.8560-04	.1032-03	.6353-01	.4613	523.6
32	.20000	.80000	347 00	.1957-02	.2359-02	.2359-02	.9000	.4750-04	.5724-04	.3530-01	.2525	522.3
32	.30000	.50000-01	348 00	.1118-01	.1350-01	.1350-01	.9000	.2713-03	.3275-03	.2002	1.514	527.8
32	.30000	.20000	349 00	.4678-02	.5641-02	.5641-02	.9000	.1135-03	.1369-03	.8409-01	.6103	524.8
32	.30000	.40000	350.00	.3771-02	.4547-02	.4547-02	.9000	.9151-04	.1103-03	.6789-01	.4930	523.8
32	.30000	.50000	351.00	.3728-02	.4495-02	.4495-02	.9000	.9047-04	.1091-03	.6717-01	.4756	523.2
32	.30000	.90000	352 00	.3548-02	.4275-02	.4275-02	.9000	.8609-04	.1037-03	.6405-01	.4811	521.6
32	.40000	.10000+00	353.00	.5097-02	.6147-02	.6147-02	.9000	.1237-03	.1492-03	.9168-01	.6764	524.5
32	.40000	.20000	354 00	.3455-02	.4166-02	.4166-02	.9000	.8384-04	.1011-03	.6220-01	.4445	523.8
32	.40000	.50000	356 00	.2781-02	.3352-02	.3352-02	.9000	.6749-04	.8134-04	.5018-01	.3670	522.2
32	.40000	.90000	358 00	.5084-02	.6127-02	.6127-02	.9000	.1234-03	.1487-03	.9175-01	.6936	522.0
32	.50000	.50000-01	359 00	.7638-02	.9214-02	.9214-02	.9000	.1853-03	.2236-03	.1372	1.082	525.6
32	.50000	.70000	360 00	.3025-02	.3645-02	.3645-02	.9000	.7341-04	.8844-04	.5467-01	.4401	521.0
32	.50000	.90000	361 00	.5785-02	.6973-02	.6973-02	.9000	.1404-03	.1692-03	.1043	.7458	522.6
32	.60000	.50000-01	362 00	.1172-01	.1414-01	.1414-01	.9000	.2844-03	.3431-03	.2102	1.629	526.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2722

## OH84B 60-0 VERTICAL TAIL

(R4UT22)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
32	.60000	.10000+00	363.00	.9116-02	.1099-01	.1099-01	.9000	.2212-03	.2668-03	.1639	1.250	524.9
32	.60000	.20000	364.00	.4670-02	.5631-02	.5631-02	.9000	.1133-03	.1366-03	.8410-01	.6248	523.7
32	.60000	.40000	365 00	.3681-02	.4435-02	.4435-02	.9000	.8931-04	.1076-03	.6645-01	.4708	521.7
32	.60000	.50000	366 00	.2765-02	.3331-02	.3331-02	.9000	.6710-04	.8084-04	.4997-01	.3576	520.9
32	.60000	.70000	367.00	.2830-02	.3410-02	.3410-02	.9000	.6866-04	.8274-04	.5115-01	.4118	520.9
32	.60000	.90000	368 00	.5539-02	.6674-02	.6674-02	.9000	.1344-03	.1619-03	.1001	.7518	521.2
32	.70000	.50000-01	369 00	.1685-01	.2033-01	.2033-01	.9000	.4088-03	.4933-03	.3021	2.469	526.7
32	.70000	.70000	370 00	.3194-02	.3848-02	.3848-02	.9000	.7749-04	.9337-04	.5768-01	.4727	521.3
32	.70000	.90000	371 00	.3517-02	.4246-02	.4246-02	.9000	.8535-04	.1030-03	.6299-01	.4879	527.7
32	.80000	.50000-01	372.00	.1430-02	.1736-02	.1736-02	.9000	.3471-04	.4212-04	.2497-01	.1916	546.4
32	.80000	.10000+00	373.00	.1964-01	.2370-01	.2370-01	.9000	.4767-03	.5751-03	.3526	2.706	526.0
32	.80000	.40000	374.00	.7286-02	.8785-02	.8785-02	.9000	.1768-03	.2132-03	.1311	.9521	523.9
32	.80000	.50000	375 00	.5959-02	.7184-02	.7184-02	.9000	.1446-03	.1743-03	.1074	.7440	523.1
32	.80000	.70000	376.00	.4546-02	.5479-02	.5479-02	.9000	.1103-03	.1330-03	.8199-01	.6595	522.5
32	.80000	.90000	377 00	.6672-02	.8042-02	.8042-02	.9000	.1619-03	.1951-03	.1203	.9343	522.6
32	.90000	.10000+00	378 00	.3087-01	.3726-01	.3726-01	.9000	.7491-03	.9042-03	.5526	4.004	527.9
32	.90000	.30000	379 00	.1175-01	.1417-01	.1417-01	.9000	.2852-03	.3439-03	.2114	1.559	524.4
32	.90000	.50000	380 00	.3451-02	.4159-02	.4159-02	.9000	.8375-04	.1009-03	.6232-01	.4389	521.5
32	.90000	.70000	381 00	.5975-02	.7202-02	.7202-02	.9000	.1450-03	.1748-03	.1078	.7880	522.5
32	.90000	.90000	382.00	.8196-02	.9879-02	.9879-02	.9000	.1989-03	.2397-03	.1477	1.116	522.8
32	.95000	.30000	383 00	.1327-01	.1600-01	.1600-01	.9000	.3220-03	.3883-03	.2387	1.716	524.6
32	.95000	.50000	384 00	.9780-02	.1179-01	.1179-01	.9000	.2373-03	.2861-03	.1761	1.258	523.7
32	.95000	.90000	385.00	.1166-01	.1405-01	.1405-01	.9000	.2829-03	.3410-03	.2100	1.433	523.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2723

OH84B 60-0 VERTICAL TAIL

(R4UT22)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
73	2.006	7.980	40 03	-.1056-02	434.9	1300.	94.62	.4527-01	2.018	3805.	.1291-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
73	.3503-01	.2867-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/R FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
73	.10000+00	.10000+00	340.00	.1665-01	.2004-01	.2004-01	.9000	.5833-03	.7020-03	.4480	3.189	531.5
73	.10000+00	.30000	341.00	.8209-02	.9876-02	.9876-02	.9000	.2875-03	.3459-03	.2214	1.629	529.7
73	.10000+00	.50000	342.00	.1039-01	.1250-01	.1250-01	.9000	.3641-03	.4379-03	.2806	2.136	528.8
73	.20000	.10000+00	343.00	.1729-01	.2080-01	.2080-01	.9000	.6056-03	.7285-03	.4663	3.376	529.6
73	.20000	.20000	344.00	.7415-02	.8917-02	.8917-02	.9000	.2597-03	.3123-03	.2005	1.491	527.7
73	.20000	.40000	345 00	.4536-02	.5453-02	.5453-02	.9000	.1589-03	.1910-03	.1228	.8817	526.8
73	.20000	.60000	346 00	.2785-02	.3346-02	.3346-02	.9000	.9754-04	.1172-03	.7556-01	.5483	525.0
73	.20000	.80000	347 00	.3806-02	.4572-02	.4572-02	.9000	.1333-03	.1602-03	.1033	.7379	524.7
73	.30000	.50000-01	348 00	.1446-01	.1739-01	.1739-01	.9000	.5064-03	.6092-03	.3897	2.944	530.0
73	.30000	.20000	349.00	.3754-02	.4512-02	.4512-02	.9000	.1315-03	.1580-03	.1017	.7378	526.1
73	.30000	.40000	350 00	.2551-02	.3065-02	.3065-02	.9000	.8934-04	.1074-03	.6921-01	.5022	525 0
73	.30000	.50000	351 00	.2796-02	.3360-02	.3360-02	.9000	.9795-04	.1177-03	.7591-01	.5371	524 7
73	.30000	.90000	352 00	.4658-02	.5597-02	.5597-02	.9000	.1632-03	.1960-03	.1264	.9481	524 8
73	.40000	.10000+00	353.00	.7801-02	.9377-02	.9377-02	.9000	.2732-03	.3284-03	.2113	1.557	526 5
73	.40000	.20000	354 00	.4884-02	.5870-02	.5870-02	.9000	.1711-03	.2056-03	.1323	.9447	526 0
73	.40000	.50000	356 00	.3618-02	.4347-02	.4347-02	.9000	.1267-03	.1523-03	.9820-01	.7172	524 9
73	.40000	.90000	358 00	.4910-02	.5900-02	.5900-02	.9000	.1720-03	.2067-03	.1332	1.006	525 1
73	.50000	.50000-01	359 00	.1884-01	.2267-01	.2267-01	.9000	.6598-03	.7942-03	.5069	3.988	531.5
73	.50000	.70000	360 00	.3052-02	.3666-02	.3666-02	.9000	.1069-03	.1284-03	.8290-01	.6663	524 1
73	.50000	.90000	361 00	.5779-02	.6945-02	.6945-02	.9000	.2024-03	.2433-03	.1568	1.119	525.3
73	.60000	.50000-01	362.00	.3053-01	.3677-01	.3677-01	.9000	.1069-02	.1288-02	.8180	6.314	534 6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT22)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
73	.60000	.10000+00	363.00	2580-01	.3106-01	.3106-01	.9000	.9039-03	.1088-02	.6944	5.278	531.4
73	.60000	.20000	364.00	.1714-01	.2063-01	.2063-01	.9000	.6005-03	.7225-03	.4624	3.425	529.7
73	.60000	.40000	365.00	8970-02	.1078-01	.1078-01	.9000	.3142-03	.3777-03	.2430	1.718	526.2
73	.60000	.50000	366.00	.6024-02	.7238-02	.7238-02	.9000	.2110-03	.2535-03	.1635	1.167	524.9
73	.60000	.70000	367.00	.3015-02	.3622-02	.3622-02	.9000	.1056-03	.1269-03	.8189-01	.6581	524.2
73	.60000	.90000	368.00	6444-02	.7741-02	.7741-02	.9000	.2257-03	.2711-03	.1750	1.313	524.2
73	.70000	.50000-01	369.00	.4344-01	.5238-01	.5238-01	.9000	.1522-02	.1835-02	1.159	9.414	538.2
73	.70000	.70000	370.00	.4183-02	.5026-02	.5026-02	.9000	.1465-03	.1760-03	.1135	.9286	524.9
73	.70000	.90000	371.00	.3038-02	.3655-02	.3655-02	.9000	.1064-03	.1280-03	.8189-01	.6336	530.0
73	.80000	.50000-01	372.00	.1301-02	.1637-02	.1637-02	.9000	.4557-04	.5735-04	.2885-01	.2087	666.6
73	.80000	.10000+00	373.00	.5945-01	.7168-01	.7168-01	.9000	.2082-02	.2511-02	1.587	12.10	537.7
73	.80000	.40000	374.00	.2788-01	.3356-01	.3356-01	.9000	.9767-03	.1176-02	.7500	5.424	531.7
73	.80000	.50000	375.00	.1927-01	.2319-01	.2319-01	.9000	.6751-03	.8122-03	.5201	3.592	529.4
73	.80000	.70000	376.00	.9503-02	.1142-01	.1142-01	.9000	.3329-03	.4001-03	.2574	2.067	526.3
73	.80000	.90000	377.00	.1001-01	.1202-01	.1202-01	.9000	.3505-03	.4212-03	.2713	2.104	525.5
73	.90000	.10000+00	378.00	.7613-01	.9186-01	.9186-01	.9000	.2667-02	.3218-02	2.023	14.56	541.0
73	.90000	.30000	379.00	.4410-01	.5310-01	.5310-01	.9000	.1545-02	.1860-02	1.184	8.694	533.2
73	.90000	.50000	380.00	.3518-02	.4227-02	.4227-02	.9000	.1232-03	.1481-03	.9554-01	.6718	524.5
73	.90000	.70000	381.00	.1369-01	.1645-01	.1645-01	.9000	.4794-03	.5763-03	.3707	2.705	526.6
73	.90000	.90000	382.00	.1639-01	.1971-01	.1971-01	.9000	.5742-03	.6904-03	.4432	3.341	527.7
73	.95000	.30000	383.00	.4358-01	.5249-01	.5249-01	.9000	.1527-02	.1839-02	1.169	8.368	533.6
73	.95000	.50000	384.00	.3622-01	.4361-01	.4361-01	.9000	.1269-02	.1528-02	.9726	6.917	533.0
73	.95000	.90000	385.00	.2231-01	.2682-01	.2682-01	.9000	.7814-03	.9395-03	.6033	4.107	527.6



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT22)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
82	3.020	7.990	40.06	-.1434-06	669.7	1317	95 63	.6916-01	3.091	3830.	.1952-02	.7696-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
82	.4344-01	.2335-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
82	.10000+00	.10000+00	340.00	.2073-01	.2492-01	.2492-01	.9000	.9006-03	.1083-02	.7049	5.011	534.0
82	.10000+00	.30000	341.00	.9829-02	.1181-01	.1181-01	.9000	.4270-03	.5130-03	.3354	2.466	531.2
82	.10000+00	.50000	342 00	.7435-02	.8930-02	.8930-02	.9000	.3230-03	.3880-03	.2541	1.933	530.0
82	.20000	.10000+00	343 00	.1631-01	.1959-01	.1959-01	.9000	.7085-03	.8511-03	.5568	4.028	530.8
82	.20000	.20000	344 00	.7207-02	.8654-02	.8654-02	.9000	.3131-03	.3760-03	.2467	1.834	529.0
82	.20000	.40000	345 00	.5562-02	.6677-02	.6677-02	.9000	.2417-03	.2901-03	.1906	1.368	527.8
82	.20000	.60000	346 00	.2634-02	.3160-02	.3160-02	.9000	.1144-03	.1373-03	.9048-01	.6562	526.1
82	.20000	.80000	347.00	.1866-02	.2238-02	.2238-02	.9000	.8105-04	.9721-04	.6420-01	.4586	524.6
82	.30000	.50000-01	348 00	.1370-01	.1647-01	.1647-01	.9000	.5954-03	.7155-03	.4672	3.526	532.0
82	.30000	.20000	349 00	.4666-02	.5599-02	.5599-02	.9000	.2027-03	.2433-03	.1600	1.160	527.2
82	.30000	.40000	350 00	.2191-02	.2629-02	.2629-02	.9000	.9519-04	.1142-03	.7528-01	.5460	525.9
82	.30000	.50000	351 00	.2258-02	.2708-02	.2708-02	.9000	.9808-04	.1177-03	.7762-01	.5490	525.2
82	.30000	.90000	352 00	.3705-02	.4444-02	.4444-02	.9000	.1609-03	.1931-03	.1273	.9543	525.7
82	.40000	.10000+00	353 00	.1010-01	.1212-01	.1212-01	.9000	.4388-03	.5267-03	.3459	2.547	528.4
82	.40000	.20000	354 00	.7545-02	.9057-02	.9057-02	.9000	.3278-03	.3935-03	.2585	1.843	528.1
82	.40000	.40000	355 00	.1871-08	.2117-08	.2117-08	.9000	.8127-10	.9198-10	.9190-07	.7936-06	185.9
82	.40000	.50000	356 00	.3220-02	.3863-02	.3863-02	.9000	.1399-03	.1678-03	.1106	.8075	525.9
82	.40000	.90000	358 00	.5209-02	.6250-02	.6250-02	.9000	.2263-03	.2715-03	.1789	1.350	526.0
82	.50000	.50000-01	359 00	.2763-01	.3325-01	.3325-01	.9000	.1200-02	.1444-02	.9354	7.337	537.4
82	.50000	.70000	360 00	.3253-02	.3902-02	.3902-02	.9000	.1413-03	.1695-03	.1118	.8980	525.5
82	.50000	.90000	361 00	.6154-02	.7385-02	.7385-02	.9000	.2674-03	.3209-03	.2112	1.507	526.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT22)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
82	60000	.50000-01	362 00	.5083-01	.6127-01	.6127-01	.9000	2208-02	.2662-02	1.706	13.11	544.0
82	60000	.10000+00	363.00	.4730-01	.5696-01	.5696-01	.9000	.2055-02	.2474-02	1.596	12.08	540.0
82	.60000	.20000	364 00	.3614-01	.4349-01	.4349-01	.9000	.1570-02	.1889-02	1.224	9.031	537.2
82	60000	.40000	365 00	.2134-01	.2564-01	.2564-01	.9000	.9272-03	.1114-02	.7284	5.137	531.1
82	60000	.50000	366 00	.1426-01	.1713-01	.1713-01	.9000	6197-03	.7441-03	.4881	3.478	529.1
82	60000	.70000	367 00	.4368-02	.5240-02	.5240-02	.9000	.1898-03	.2277-03	.1501	1.206	525.7
82	.60000	.90000	368 00	.6684-02	.8019-02	.8019-02	.9000	.2904-03	.3484-03	.2237	1.722	525.7
82	.70000	.50000-01	369 00	.6498-01	.7844-01	.7844-01	.9000	.2823-02	.3408-02	2.167	17.51	549.1
82	.70000	.70000	370 00	.8664-02	.1040-01	.1040-01	.9000	.3764-03	.4518-03	.2970	2.427	527.5
82	.70000	.90000	371.00	.4065-02	.4882-02	.4882-02	.9000	.1766-03	.2121-03	.1388	1.074	530.6
82	.80000	.50000-01	372 00	.1304-02	.1651-02	.1651-02	.9000	.5664-04	.7172-04	.3548-01	.2538	690.3
82	.80000	.10000+00	373 00	.6365-01	.7671-01	.7671-01	.9000	.2765-02	.3333-02	2.139	16.27	543.3
82	.80000	.40000	374.00	.4215-01	.5074-01	.5074-01	.9000	.1831-02	.2204-02	1.425	10.27	538.5
82	.80000	.50000	375.00	.3380-01	.4066-01	.4066-01	.9000	.1468-02	.1766-02	1.146	7.884	536.4
82	80000	.70000	376 00	.1773-01	.2130-01	.2130-01	.9000	.7705-03	.9255-03	.6054	4.849	530.9
82	.80000	.90000	377 00	.1824-01	.1950-01	.1950-01	.9000	.7057-03	.8474-03	.5559	4.303	529.0
82	.90000	.10000+00	378.00	.6373-01	.7682-01	.7682-01	.9000	.2769-02	.3337-02	2.139	15.37	544.1
82	.90000	.30000	379.00	.3647-01	.4386-01	.4386-01	.9000	.1584-02	.1905-02	1.238	9.082	535.3
82	90000	.50000	380 00	.3374-02	.4048-02	.4048-02	.9000	.1466-03	.1759-03	1.160	.8150	525.6
82	90000	.70000	381 00	.1679-01	.2016-01	.2016-01	.9000	.7293-03	.8757-03	.5745	4.188	528.9
82	.90000	.90000	382 00	.2005-01	.2409-01	.2409-01	.9000	.8712-03	.1046-02	.6849	5.155	530.5
82	.95000	.30000	383.00	.3245-01	.3903-01	.3903-01	.9000	.1410-02	.1696-02	1.101	7.874	535.4
82	.95000	.50000	384 00	.3027-01	.3640-01	.3640-01	.9000	.1315-02	.1581-02	1.028	7.308	534.7
82	.95000	.90000	385 00	.2355-01	.2828-01	.2828-01	.9000	.1023-02	.1229-02	.8045	5.469	530.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT22)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
145	3 684	8.000	40.10	- .1083-02	853.6	1353	98 02	.8744-01	3.917	3883.	.2408-02	.7888-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
145	.4914-01	.2108-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
145	.10000+00	.10000+00	340.00	.2193-01	.2629-01	.2629-01	.9000	.1078-02	.1292-02	.8790	6.239	536.9
145	.10000+00	.30000	341.00	.1068-01	.1279-01	.1279-01	.9000	.5246-03	.6285-03	.4293	3.151	534.3
145	.10000+00	.50000	342.00	.9223-02	.1105-01	.1105-01	.9000	.4532-03	.5428-03	.3715	2.822	532.9
145	.20000	.10000+00	343.00	.1517-01	.1816-01	.1816-01	.9000	.7453-03	.8926-03	.6107	4.413	533.2
145	.20000	.20000	344 00	.6940-02	.8307-02	.8307-02	.9000	.3410-03	.4082-03	.2804	2.082	530.6
145	.20000	.40000	345.00	.6538-02	.7826-02	.7826-02	.9000	.3213-03	.3846-03	.2641	1.893	530.6
145	.20000	.60000	346.00	.3972-02	.4752-02	.4752-02	.9000	.1952-03	.2335-03	.1609	1.165	528.5
145	.20000	.80000	347 00	.4318-02	.5165-02	.5165-02	.9000	.2122-03	.2538-03	.1750	1.248	528.0
145	.30000	.50000-01	348 00	.1337-01	.1602-01	.1602-01	.9000	.6572-03	.7871-03	.5384	4.061	533.3
145	.30000	.20000	349 00	.4775-02	.5713-02	.5713-02	.9000	.2346-03	.2808-03	.1932	1.399	529.2
145	.30000	.40000	350 00	.3044-02	.3641-02	.3641-02	.9000	.1496-03	.1789-03	.1233	.8931	528.4
145	.30000	.50000	351 00	.2574-02	.3079-02	.3079-02	.9000	.1265-03	.1513-03	.1044	.7372	527.7
145	.30000	.90000	352 00	.6934-02	.8296-02	.8296-02	.9000	.3408-03	.4077-03	.2809	2.102	528.4
145	.40000	.10000+00	353 00	.1091-01	.1306-01	.1306-01	.9000	.5361-03	.6416-03	.4408	3.242	530.4
145	.40000	.20000	354 00	.7264-02	.8692-02	.8692-02	.9000	.3569-03	.4271-03	.2939	2.094	529.4
145	.40000	.50000	356 00	.3480-02	.4162-02	.4162-02	.9000	.1710-03	.2045-03	.1411	1.029	527.7
145	.40000	.90000	358 00	.7736-02	.9257-02	.9257-02	.9000	.3802-03	.4549-03	.3131	2.359	529.0
145	.50000	.50000-01	359 00	.3127-01	.3751-01	.3751-01	.9000	.1537-02	.1843-02	.1.250	9.794	539.3
145	.50000	.70000	360.00	.3651-02	.4367-02	.4367-02	.9000	.1794-03	.2146-03	.1479	1.187	528.1
145	.50000	.90000	361.00	.7808-02	.9343-02	.9343-02	.9000	.3837-03	.4591-03	.3159	2.251	529.2
145	.60000	.50000-01	362 00	.5260-01	.6319-01	.6319-01	.9000	.2585-02	.3105-02	.2.086	16.01	545.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2728

## OH84B 60-0 VERTICAL TAIL

(R4UT22)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
145	.60000	.10000+00	363.00	.4005-01	.4803-01	.4803-01	.9000	.1968-02	.2360-02	1.602	12.13	538.7
145	.60000	.20000	364.00	.2841-01	.3406-01	.3406-01	.9000	.1396-02	.1673-02	1.139	8.409	536.6
145	.60000	.40000	365.00	.2118-01	.2537-01	.2537-01	.9000	.1041-02	.1247-02	.8529	6.008	533.3
145	.60000	.50000	366.00	.1565-01	.1874-01	.1874-01	.9000	.7692-03	.9208-03	.6317	4.496	531.4
145	.60000	.70000	367.00	.4977-02	.5954-02	.5954-02	.9000	.2446-03	.2926-03	.2016	1.617	528.4
145	.60000	.90000	368.00	.7849-02	.9389-02	.9389-02	.9000	.3857-03	.4614-03	.3181	2.382	528.0
145	.70000	.50000-01	369.00	.6789-01	.8168-01	.8168-01	.9000	.3336-02	.4014-02	2.672	21.56	551.7
145	.70000	.70000	370.00	.1028-01	.1231-01	.1231-01	.9000	.5053-03	.6048-03	.4154	3.388	530.7
145	.70000	.90000	371.00	.3883-02	.4650-02	.4650-02	.9000	.1908-03	.2285-03	.1565	1.209	532.7
145	.80000	.50000-01	372.00	.8318-03	.1107-02	.1107-02	.9000	.4087-04	.5440-04	.2223-01	.1506	808.8
145	.80000	.10000+00	373.00	.5733-01	.6890-01	.6890-01	.9000	.2820-02	.3386-02	2.281	17.35	543.7
145	.80000	.40000	374.00	.4291-01	.5149-01	.5149-01	.9000	.2108-02	.2530-02	1.711	12.31	541.3
145	.80000	.50000	375.00	.3449-01	.4136-01	.4136-01	.9000	.1695-02	.2032-02	1.381	9.493	538.0
145	.80000	.70000	376.00	.1859-01	.2227-01	.2227-01	.9000	.9134-03	.1094-02	.7478	5.981	533.9
145	.80000	.90000	377.00	.1596-01	.1910-01	.1910-01	.9000	.7840-03	.9387-03	.6436	4.975	531.8
145	.90000	.10000+00	378.00	.5532-01	.6642-01	.6642-01	.9000	.2719-02	.3264-02	2.201	15.82	543.2
145	.90000	.30000	379.00	.3723-01	.4465-01	.4465-01	.9000	.1830-02	.2194-02	1.490	10.91	538.3
145	.90000	.50000	380.00	.3844-02	.4598-02	.4598-02	.9000	.1889-03	.2259-03	.1559	1.094	527.5
145	.90000	.70000	381.00	.1620-01	.1939-01	.1939-01	.9000	.7959-03	.9529-03	.6537	4.759	531.4
145	.90000	.90000	382.00	.1759-01	.2107-01	.2107-01	.9000	.8646-03	.1036-02	.7086	5.327	533.1
145	.95000	.30000	383.00	.3186-01	.3820-01	.3820-01	.9000	.1566-02	.1877-02	1.277	9.124	536.9
145	.95000	.50000	384.00	.3347-01	.4013-01	.4013-01	.9000	.1645-02	.1972-02	1.341	9.512	537.6
145	.95000	.90000	385.00	.2142-01	.2565-01	.2565-01	.9000	.1052-02	.1260-02	.8627	5.857	532.9

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2729

OH84B 60-O VERTICAL TAIL

(R4UT25)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    - BETA = 1.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
20	.5050	7.900	40.03	1.041	100.6	1251.	92 77	.1118-01	.4882	3730.	.3252-03	.7465-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
20	.1711-01	.5691-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
20	.10000+00	.10000+00	340.00	.2057-01	.2488-01	.2488-01	.9000	.3521-03	.4258-03	.2544	1.814	528.2
20	.10000+00	.30000	341.00	.7456-02	.9012-02	.9012-02	.9000	.1276-03	.1542-03	.9246-01	.6815	526.1
20	.10000+00	.50000	342.00	.4748-02	.5737-02	.5737-02	.9000	.8126-04	.9818-04	.5897-01	.4496	525.0
20	.20000	10000+00	343.00	.1125-01	.1359-01	.1359-01	.9000	.1925-03	.2326-03	.1397	1.014	525.1
20	.20000	20000	344.00	.4905-02	.5926-02	.5926-02	.9000	.8395-04	.1014-03	.6096-01	.4542	524.5
20	.20000	.40000	345.00	.2725-02	.3291-02	.3291-02	.9000	.4664-04	.5633-04	.3391-01	.2438	523.7
20	20000	.60000	346.00	.2437-02	.2943-02	.2943-02	.9000	.4171-04	.5036-04	.3035-01	.2205	522.9
20	20000	.80000	347 00	.2289-02	.2763-02	.2763-02	.9000	.3917-04	.4729-04	.2854-01	.2041	522.1
20	30000	.50000-01	348 00	.1433-01	.1732-01	.1732-01	.9000	.2452-03	.2964-03	.1776	1.344	526.6
20	.30000	.20000	349 00	.4241-02	.5122-02	.5122-02	.9000	.7258-04	.8766-04	.5277-01	.3831	523.7
20	.30000	.40000	350 00	.2050-02	.2476-02	.2476-02	.9000	.3509-04	.4237-04	.2554-01	.1855	522.8
20	30000	50000	351 00	.2058-02	.2485-02	.2485-02	.9000	.3522-04	.4253-04	.2566-01	.1817	522.3
20	30000	90000	352 00	.3806-02	.4594-02	.4594-02	.9000	.6513-04	.7863-04	.4746-01	.3564	522.0
20	.40000	10000+00	353 00	.1133-01	.1369-01	.1369-01	.9000	.1939-03	.2342-03	.1408	1.039	524.4
20	.40000	20000	354 00	.6140-02	.7416-02	.7416-02	.9000	.1051-03	.1269-03	.7642-01	.5461	523.5
20	40000	50000	356 00	.2279-02	.2751-02	.2751-02	.9000	.3900-04	.4708-04	.2841-01	.2078	522.1
20	40000	.90000	358 00	.4696-02	.5669-02	.5669-02	.9000	.8036-04	.9702-04	.5855-01	.4426	522.1
20	50000	.50000-01	359 00	.2083-01	.2518-01	.2518-01	.9000	.3565-03	.4309-03	.2582	2.036	526.4
20	50000	.70000	360.00	.1759-02	.2123-02	.2123-02	.9000	.3011-04	.3634-04	.2196-01	.1768	521.2
20	.50000	90000	361 00	.4725-02	.5704-02	.5704-02	.9000	.8086-04	.9763-04	.5888-01	.4210	522.5
20	.60000	.50000-01	362 00	.2238-01	.2705-01	.2705-01	.9000	.3829-03	.4629-03	.2772	2.148	526.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT25)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
20	.60000	.10000+00	363.00	.1816-01	.2194-01	.2194-01	9000	.3107-03	.3755-03	.2252	1.717	525.8
20	60000	.20000	364.00	.1006-01	.1215-01	.1215-01	9000	.1722-03	.2080-03	.1250	.9285	524.5
20	60000	.40000	365.00	.5981-02	.7220-02	.7220-02	9000	.1024-03	.1236-03	.7454-01	.5280	522.4
20	60000	.50000	366.00	.3827-02	.4619-02	.4619-02	9000	.6549-04	.7905-04	.4775-01	.3416	521.6
20	60000	.70000	367.00	.1984-02	.2394-02	.2394-02	9000	.3395-04	.4098-04	.2477-01	.1994	521.1
20	60000	.90000	368.00	.4245-02	.5124-02	.5124-02	9000	.7265-04	.6763-04	.5300-01	.3982	521.1
20	70000	.50000-01	369.00	.2139-01	.2586-01	.2586-01	9000	.3661-03	.4425-03	.2650	2.166	526.7
20	70000	.70000	370.00	.2948-02	.3558-02	.3558-02	9000	.5045-04	.6089-04	.3680-01	.3016	521.2
20	70000	.90000	371.00	.2060-02	.2491-02	.2491-02	9000	.3525-04	.4263-04	.2548-01	.1973	527.9
20	80000	.10000+00	373.00	.2040-01	.2466-01	.2466-01	9000	.3491-03	.4220-03	.2531	1.942	525.9
20	80000	.40000	374.00	.8750-02	.1057-01	.1057-01	9000	.1497-03	.1809-03	.1089	.7909	523.4
20	.80000	.50000	375.00	.6980-02	.8428-02	.8428-02	9000	.1195-03	.1442-03	.8697-01	.6021	522.6
20	.80000	.70000	376.00	.4731-02	.5712-02	.5712-02	9000	.8097-04	.9775-04	.5901-01	.4748	521.9
20	80000	.90000	377.00	.5703-02	.6884-02	.6884-02	9000	.9759-04	.1178-03	.7113-01	.5526	521.9
20	90000	.10000+00	378.00	.2321-01	.2805-01	.2805-01	9000	.3972-03	.4801-03	.2880	2.089	525.8
20	90000	.30000	379.00	.1122-01	.1355-01	.1355-01	9000	.1921-03	.2319-03	.1397	1.031	523.3
20	.90000	.50000	380.00	.2481-02	.2995-02	.2995-02	9000	.4246-04	.5125-04	.3095-01	.2179	521.8
20	90000	.70000	381.00	.6222-02	.7511-02	.7511-02	9000	.1065-03	.1285-03	.7763-01	.5680	521.7
20	90000	.90000	382.00	.6827-02	.8242-02	.8242-02	9000	.1168-03	.1411-03	.8506-01	.6430	522.5
20	.95000	.30000	383.00	.1173-01	.1416-01	.1416-01	9000	.2007-03	.2424-03	.1461	1.051	523.0
20	.95000	.50000	384.00	.9206-02	.1112-01	.1112-01	9000	.1575-03	.1902-03	.1147	.8197	522.9
20	.95000	.90000	385.00	.9468-02	.1143-01	.1143-01	9000	.1620-03	.1957-03	.1179	.8047	522.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT25)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
35	1.011	7.940	40.05	1.018	204.7	1254.	92.12	.2202-01	.9718	3736.	.6452-03	.7413-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
35	.2416-01	4041-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
35	.10000+00	.10000+00	340.00	.1840-01	.2226-01	.2226-01	.9000	.4446-03	.5376-03	.3220	2.295	529.3
35	.10000+00	.30000	341.00	.7588-02	.9172-02	.9172-02	9000	.1833-03	.2216-03	.1330	.9795	528.0
35	.10000+00	.50000	342.00	.5494-02	.6640-02	.6640-02	9000	.1327-03	.1604-03	.9644-01	.7347	527.0
35	.20000	.10000+00	343.00	.1654-01	.1999-01	.1999-01	9000	.3995-03	.4828-03	.2901	2.103	527.4
35	.20000	.20000	344.00	.7548-02	.9122-02	.9122-02	9000	.1823-03	.2204-03	.1325	.9858	527.1
35	.20000	.40000	345.00	.4565-02	.5514-02	.5514-02	9000	.1103-03	.1332-03	.8025-01	.5765	525.8
35	.20000	.60000	346.00	.3318-02	.4007-02	.4007-02	9000	.8014-04	.9680-04	.5839-01	.4237	525.1
35	.20000	.80000	347.00	.1910-02	.2306-02	.2306-02	9000	.4613-04	.5570-04	.3366-01	.2405	524.0
35	.30000	.50000-01	348.00	.1498-01	.1811-01	.1811-01	9000	.3618-03	.4375-03	.2622	1.982	529.0
35	.30000	.20000	349.00	.4735-02	.5721-02	.5721-02	9000	.1144-03	.1382-03	.8325-01	.6039	525.8
35	.30000	.40000	350.00	.2681-02	.3238-02	.3238-02	9000	.6477-04	.7822-04	.4720-01	.3425	524.9
35	.30000	.50000	351.00	.2733-02	.3300-02	.3300-02	9000	.6600-04	.7971-04	.4813-01	.3405	524.5
35	.30000	.90000	352.00	.3648-02	.4405-02	.4405-02	9000	.8811-04	.1064-03	.6427-01	.4821	524.3
35	.40000	.10000+00	353.00	.6601-02	.7975-02	.7975-02	9000	.1595-03	.1926-03	.1160	.8552	526.0
35	.40000	.20000	354.00	.4326-02	.5225-02	.5225-02	9000	.1045-03	.1262-03	.7610-01	.5434	525.3
35	.40000	.50000	356.00	.2934-02	.3544-02	.3544-02	9000	.7088-04	.8560-04	.5169-01	.3776	524.5
35	.40000	.90000	358.00	.5177-02	.6252-02	.6252-02	9000	.1250-03	.1510-03	.9114-01	.6880	524.8
35	.50000	.50000-01	359.00	.7234-02	.8743-02	.8743-02	9000	.1747-03	.2112-03	.1269	1.001	527.2
35	.50000	.70000	360.00	.2816-02	.3400-02	.3400-02	9000	.6802-04	.8212-04	.4964-01	.3990	523.9
35	.50000	.90000	361.00	.6312-02	.7624-02	.7624-02	9000	.1525-03	.1842-03	.1110	.7928	525.4
35	.60000	.50000-01	362.00	.1015-01	.1227-01	.1227-01	9000	.2451-03	.2963-03	.1778	1.377	528.2

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT25)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
35	60000	.10000+00	363.00	9484-02	.1146-01	.1146-01	9000	.2291-03	.2769-03	.1664	1 267	527.3
35	.60000	.20000	364.00	.6120-02	.7395-02	.7395-02	9000	.1478-03	.1786-03	.1075	.7976	526.4
35	60000	.40000	365.00	4657-02	.5624-02	.5624-02	9000	.1125-03	.1359-03	.8200-01	.5802	524.7
35	.60000	.50000	366.00	3696-02	.4463-02	.4463-02	9000	.8928-04	.1078-03	.6514-01	.4654	524.0
35	60000	.70000	367.00	2801-02	.3382-02	.3382-02	9000	.6766-04	.8170-04	.4938-01	.3969	523.9
35	60000	.90000	368.00	5869-02	.7087-02	.7087-02	9000	.1418-03	.1712-03	.1034	.7761	524.0
35	70000	.50000-01	369.00	1463-01	.1769-01	.1769-01	9000	.3534-03	.4272-03	.2563	2.093	528.4
35	70000	.70000	370.00	3453-02	.4170-02	.4170-02	9000	.8341-04	.1007-03	.6087-01	.4981	524.0
35	70000	90000	371.00	3529-02	.4267-02	.4267-02	9000	.8525-04	.1031-03	.6178-01	.4783	528.9
35	80000	.50000-01	372.00	.4816-02	.6194-02	.6194-02	9000	.1163-03	.1496-03	.6559-01	.4692	689.9
35	80000	.10000+00	373.00	.2004-01	.2422-01	.2422-01	9000	.4840-03	.5851-03	.3512	2 692	528.1
35	80000	.40000	374.00	.9592-02	.1159-01	.1159-01	9000	.2317-03	.2799-03	.1686	1 223	526.0
35	.80000	.50000	375.00	.7743-02	.9354-02	.9354-02	9000	.1870-03	.2259-03	.1361	.9419	525.8
35	80000	.70000	376.00	4881-02	.5895-02	.5895-02	9000	.1179-03	.1424-03	.8593-01	.6904	524.9
35	.80000	.90000	377.00	6393-02	.7721-02	.7721-02	9000	.1544-03	.1865-03	.1126	.8733	524.7
35	90000	.10000+00	378.00	2868-01	.3468-01	.3468-01	9000	.6927-03	.8378-03	.5015	3 631	529.6
35	.90000	.30000	379.00	1461-01	.1765-01	.1765-01	9000	.3528-03	.4263-03	.2565	1 890	526.7
35	90000	.50000	380.00	3332-02	.4023-02	.4023-02	9000	.8048-04	.9719-04	.5871-01	.4128	524.3
35	90000	.70000	381.00	.6716-02	.8111-02	.8111-02	9000	.1622-03	.1959-03	.1183	.8640	524.6
35	90000	.90000	382.00	.7861-02	.9495-02	.9495-02	9000	.1899-03	.2294-03	.1383	1.044	525.3
35	.95000	.30000	383.00	.1589-01	.1920-01	.1920-01	9000	.3837-03	.4637-03	.2789	2.003	526.8
35	.95000	.50000	384.00	.1274-01	.1539-01	.1539-01	9000	.3077-03	.3718-03	.2239	1.598	526.0
35	.95000	.90000	385.00	.1252-01	.1512-01	.1512-01	9000	.3023-03	.3652-03	.2203	1 502	525.0



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2733

OH84B 60-0 VERTICAL TAIL

(R4UT25)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
70	2.009	7.980	40.07	1.025	435 0	1299	94 54	.4529-01	2.019	3804.	.1293-02	.7608-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
70	.3503-01	.2865-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
70	.10000+00	.10000+00	340.00	.1707-01	.2056-01	.2056-01	9000	.5981-03	.7200-03	.4584	3.262	532.1
70	.10000+00	.30000	341.00	.7437-02	.8548-02	.8948-02	9000	.2605-03	.3134-03	.2003	1.474	529.6
70	.10000+00	.50000	342.00	.9529-02	.1147-01	.1147-01	.9000	.3338-03	.4016-03	.2567	1.953	529.6
70	.20000	.10000+00	343.00	.1753-01	.2110-01	.2110-01	9000	.6141-03	.7390-03	.4719	3.415	530.3
70	.20000	.20000	344.00	.7636-02	.9148-02	.9148-02	9000	.2664-03	.3204-03	.2052	1.526	528.3
70	.20000	.40000	345.00	.5118-02	.6154-02	.6154-02	9000	.1793-03	.2155-03	.1383	.9925	527.4
70	.20000	.60000	346.00	.3125-02	.3756-02	.3756-02	9000	.1095-03	.1316-03	.8461-01	.6138	525.6
70	.20000	.80000	347.00	.3889-02	.4674-02	.4674-02	9000	.1362-03	.1637-03	.1054	.7525	525.1
70	.30000	.50000-01	348.00	.1515-01	.1824-01	.1824-01	9000	.5308-03	.6389-03	.4076	3.078	530.8
70	.30000	.20000	349.00	.4090-02	.4917-02	.4917-02	9000	.1433-03	.1722-03	.1106	.8018	526.7
70	.30000	.40000	350.00	.2714-02	.3262-02	.3262-02	9000	.9508-04	.1143-03	.7350-01	.5332	525.6
70	.30000	.50000	351.00	.2518-02	.3027-02	.3027-02	9000	.8822-04	.1060-03	.6825-01	.4828	525.0
70	.30000	.90000	352.00	.4759-02	.5720-02	.5720-02	9000	.1667-03	.2003-03	.1289	.9666	525.3
70	.40000	.10000+00	353.00	.9172-02	.1103-01	.1103-01	9000	.3213-03	.3863-03	.2478	1.625	527.3
70	.40000	.20000	354.00	.4886-02	.5874-02	.5874-02	9000	.1712-03	.2058-03	.1322	.9432	526.4
70	.40000	.50000	356.00	.2915-02	.3503-02	.3503-02	9000	.1021-03	.1227-03	.7899-01	.5769	525.0
70	.40000	.90000	358.00	.5674-02	.6819-02	.6819-02	9000	.1988-03	.2389-03	.1537	1.160	525.3
70	.50000	.50000-01	359.00	.2071-01	.2493-01	.2493-01	9000	.7253-03	.8731-03	.5562	4.375	531.8
70	.50000	.70000	360.00	.2874-02	.3453-02	.3453-02	9000	.1007-03	.1210-03	.7793-01	.6262	524.5
70	.50000	.90000	361.00	.5880-02	.7068-02	.7068-02	9000	.2060-03	.2476-03	.1592	1.136	525.7
70	.60000	.50000-01	362.00	.2912-01	.3508-01	.3508-01	9000	.1020-02	.1229-02	.7797	6.020	534.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT25)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
70	60000	.10000+00	363 00	.2071-01	.2493-01	.2493-01	9000	.7255-03	.8731-03	.5575	4.240	530.3
70	60000	.20000	364 00	.1320-01	.1588-01	.1588-01	9000	.4625-03	.5564-03	.3559	2.637	529.0
70	.60000	.40000	365 00	.9683-02	.1164-01	.1164-01	9000	.3392-03	.4078-03	.2617	1.849	527.0
70	60000	.50000	366 00	.7294-02	.8768-02	.8768-02	9000	.2555-03	.3071-03	.1974	1.409	525.9
70	.60000	.70000	367 00	.3010-02	.3617-02	.3617-02	9000	.1054-03	.1267-03	.8158-01	.6555	524.8
70	.60000	.90000	368 00	.5934-02	.7130-02	.7130-02	9000	.2078-03	.2497-03	.1609	1.207	524.6
70	.70000	.50000-01	369 00	.4040-01	.4870-01	.4870-01	9000	.1415-02	.1706-02	1.078	8.763	536.9
70	.70000	.70000	370 00	.4504-02	.5412-02	.5412-02	9000	.1578-03	.1896-03	.1220	.9982	525.1
70	.70000	.90000	371 00	.2958-02	.3559-02	.3559-02	9000	.1036-03	.1247-03	.7961-01	.6159	530.3
70	.80000	.50000-01	372 00	.1941-02	.2448-02	.2448-02	9000	.6799-04	.8575-04	.4262-01	.3076	671.7
70	.80000	.10000+00	373 00	.4587-01	.5527-01	.5527-01	9000	.1607-02	.1936-02	1.227	9.369	535.2
70	.80000	.40000	374 00	.2469-01	.2972-01	.2972-01	9000	.8649-03	.1041-02	.6635	4.798	531.5
70	.80000	.50000	375 00	.1868-01	.2248-01	.2248 01	9000	.6545-03	.7875-03	.5031	3.473	530.0
70	.80000	.70000	376 00	.8613-02	.1036-01	.1036-01	9000	.3017-03	.3627-03	.2327	1.867	527.3
70	.80000	.90000	377 00	.8727-02	.1049-01	.1049-01	9000	.3057-03	.3675-03	.2361	1.830	526.4
70	.90000	.10000+00	378 00	.6488-01	.7826-01	.7826-01	9000	.2273-02	.2741-02	1.726	12.44	539.1
70	.90000	.30000	379 00	.3482-01	.4193-01	.4193-01	9000	.1220-02	.1469-02	.9337	6.858	533.1
70	.90000	.50000	380 00	.3668-02	.4408-02	.4408-02	9000	.1285-03	.1544-03	.9940-01	.6988	524.9
70	.90000	.70000	381 00	.1277-01	.1536-01	.1536-01	9000	.4473-03	.5378-03	.3451	2.517	527.2
70	.90000	.90000	382 00	.1258-01	.1513-01	.1513-01	9000	.4407-03	.5300-03	.3397	2.561	527.8
70	.95000	.30000	383 00	.3576-01	.4307-01	.4307-01	9000	.1253-02	.1509-02	.9582	6.856	533.7
70	.95000	.50000	384 00	.3094-01	.3726-01	.3726-01	9000	.1084-02	.1305-02	.8303	5.906	532.6
70	.95000	.90000	385 00	.1925-01	.2315-01	.2315-01	9000	.6742-03	.8109-03	.5194	3.534	528.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT26)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 2.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

## \*\*\*TEST CONDITION\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
23	.5076	7.900	40.00	2 019	101.2	1252.	92.84	.1125-01	.4913	3732.	.3270-03	.7471-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = .0175
23	1717-01	.5676-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
23	.10000+00	10000+00	340.00	.2362-01	.2854-01	.2854-01	9000	.4055-03	.4901-03	.2939	2.097	526.8
23	.10000+00	30000	341.00	.7814-02	.9440-02	.9440-02	9000	.1342-03	.1621-03	.9749-01	.7190	525.1
23	.10000+00	.50000	342.00	.5362-02	.6475-02	.6475-02	9000	.9206-04	.1112-03	.6700-01	.5112	523.9
23	.20000	.10000+00	343.00	.1390-01	.1679-01	.1679-01	9000	.2386-03	.2882-03	.1735	1.260	524.4
23	.20000	.20000	344.00	.6480-02	.7826-02	.7826-02	9000	.1113-03	.1344-03	.8098-01	.6035	523.9
23	.20000	.40000	345.00	.4327-02	.5224-02	.5224-02	9000	.7430-04	.8971-04	.5414-01	.3895	523.0
23	.20000	.60000	346.00	.3173-02	.3830-02	.3830-02	9000	.5448-04	.6577-04	.3974-01	.2888	522.2
23	.20000	.80000	347.00	.1873-02	.2260-02	.2260-02	9000	.3216-04	.3881-04	.2349-01	.1681	521.2
23	.30000	.50000-01	348.00	.2051-01	.2479-01	.2479-01	9000	.3522-03	.4257-03	.2555	1.934	526.3
23	.30000	.20000	349.00	.7705-02	.9304-02	.9304-02	9000	.1323-03	.1598-03	.9635-01	.6997	523.4
23	.30000	.40000	350.00	.4743-02	.5726-02	.5726-02	9000	.8145-04	.9832-04	.5940-01	.4316	522.4
23	.30000	.50000	351.00	.4009-02	.4838-02	.4838-02	9000	.6883-04	.8308-04	.5024-01	.3559	521.8
23	.30000	.90000	352.00	.2219-02	.2677-02	.2677-02	9000	.3810-04	.4597-04	.2783-01	.2091	521.1
23	.40000	.10000+00	353.00	.1327-01	.1603-01	.1603-01	9000	.2279-03	.2752-03	.1660	1.225	523.4
23	.40000	.20000	354.00	.1025-01	.1238-01	.1238-01	9000	.1760-03	.2126-03	.1282	.9162	523.4
23	.40000	.40000	355.00	.3550-09	.4022-09	.4022-09	9000	.6095-11	.6906-11	.6496-08	.5610-07	185.9
23	.40000	.50000	356.00	.5587-02	.6744-02	.6744-02	9000	.9594-04	.1158-03	.7002-01	.5122	521.9
23	.40000	.90000	358.00	.2839-02	.3427-02	.3427-02	9000	.4876-04	.5884-04	.3561-01	.2693	521.2
23	.50000	.50000-01	359.00	.1695-01	.2046-01	.2046-01	9000	.2911-03	.3517-03	.2114	1.668	525.5
23	.50000	.70000	360.00	.3101-02	.3741-02	.3741-02	9000	.5324-04	.6424-04	.3891-01	.3133	520.8
23	.50000	.90000	361.00	.4873-02	.5882-02	.5882-02	9000	.8368-04	.1010-03	.6107-01	.4369	521.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT26)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
23	.60000	.50000-01	362.00	.1085-01	.1311-01	.1311-01	9000	.1863-03	.2251-03	.1354	1.050	525.1
23	60000	.10000+00	363.00	.9505-02	.1148-01	.1148-01	9000	.1632-03	.1971-03	.1186	.9048	524.7
23	60000	.20000	364.00	.6756-02	.8158-02	.8158-02	9000	.1160-03	.1401-03	.8449-01	.6278	523.3
23	60000	.40000	365.00	.5811-02	.7014-02	.7014-02	9000	.9978-04	.1204-03	.7283-01	.5161	521.7
23	60000	.50000	366.00	.4782-02	.5771-02	.5771-02	9000	.8212-04	.9909-04	.5999-01	.4293	521.1
23	60000	.70000	367.00	.3895-02	.4700-02	.4700-02	9000	.6688-04	.8070-04	.4887-01	.3934	520.9
23	.60000	.90000	368.00	.5841-02	.7048-02	.7048-02	9000	.1003-03	.1210-03	.7330-01	.5508	520.8
23	70000	.50000-01	369.00	.8166-02	.9865-02	.9865-02	9000	.1402-03	.1694-03	.1019	.8336	524.9
23	70000	.70000	370.00	.5290-02	.6384-02	.6384-02	9000	.9083-04	.1096-03	.6635-01	.5438	521.1
23	70000	.90000	371.00	.5018-02	.6062-02	.6062-02	9000	.8617-04	.1041-03	.6266-01	.4861	524.5
23	80000	.50000-01	372.00	.1429-02	.1761-02	.1761-02	9000	.2454-04	.3024-04	.1630-01	.1225	587.5
23	80000	.10000+00	373.00	.1142-01	.1379-01	.1379-01	9000	.1961-03	.2368-03	.1427	1.096	524.0
23	80000	.40000	374.00	.6991-02	.8440-02	.8440-02	9000	.1200-03	.1449-03	.8754-01	.6361	522.4
23	80000	.50000	375.00	.6446-02	.7781-02	.7781-02	9000	.1107-03	.1336-03	.8077-01	.5599	522.0
23	.80000	.70000	376.00	.6903-02	.8332-02	.8332-02	9000	.1185-03	.1431-03	.8651-01	.6961	521.8
23	80000	.90000	377.00	.8710-02	.1051-01	.1051-01	9000	.1496-03	.1805-03	.1091	.8478	522.0
23	.90000	.10000+00	378.00	.1857-01	.2244-01	.2244-01	9000	.3189-03	.3853-03	.2318	1.682	524.8
23	.90000	.30000	379.00	.7360-02	.8885-02	.8885-02	9000	.1264-03	.1526-03	.9215-01	.6805	522.5
23	.90000	.50000	380.00	.2375-02	.2867-02	.2867-02	9000	.4079-04	.4922-04	.2980-01	.2099	521.0
23	.90000	.70000	381.00	.7420-02	.8955-02	.8955-02	9000	.1274-03	.1538-03	.9305-01	.6808	521.3
23	.90000	.90000	382.00	.1018-01	.1229-01	.1229-01	9000	.1747-03	.2110-03	.1274	.9629	522.6
23	.95000	.30000	383.00	.7903-02	.9540-02	.9540-02	9000	.1357-03	.1678-03	.9898-01	.7123	522.2
23	.95000	.50000	384.00	.8368-02	.1010-01	.1010-01	9000	.1437-03	.1734-03	.1048	.7497	522.1
23	.95000	.90000	385.00	.1446-01	.1746-01	.1746-01	9000	.2483-03	.2998-03	.1811	1.236	522.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSOINETIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT26)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 2.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
38	1.003	7.940	40.02	2.013	203.6	1256.	92.27	.2190-01	.9666	3739.	.6407-03	.7425-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
38	.2410-01	.4056-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
38	10000+00	.10000+00	340.00	.1707-01	.2064-01	.2064-01	.9000	.4114-03	.4973-03	.2993	2.134	528.1
38	10000+00	.30000	341.00	.6620-02	.7997-02	.7997-02	.9000	.1595-03	.1927-03	.1163	.8572	526.5
38	.10000+00	50000	342.00	.4659-02	.5626-02	.5626-02	.9000	.1123-03	.1356-03	.8201-01	.6253	525.2
38	20000	.10000+00	343.00	.2077-01	.2510-01	.2510-01	.9000	.5006-03	.6048-03	.3649	2.645	526.8
38	.20000	.20000	344.00	.1017-01	.1229-01	.1229-01	.9000	.2452-03	.2961-03	.1790	1.333	525.7
38	20000	.40000	345.00	.4984-02	.6017-02	.6017-02	.9000	.1201-03	.1450-03	.8783-01	.6314	524.4
38	20000	.60000	346.00	.2746-02	.3314-02	.3314-02	.9000	.6618-04	.7987-04	.4847-01	.3521	523.2
38	20000	80000	347.00	.1380-02	.1665-02	.1665-02	.9000	.3325-04	.4011-04	.2440-01	.1745	521.9
38	30000	50000-01	348.00	.2030-01	.2453-01	.2453-01	.9000	.4892-03	.5911-03	.3561	2.693	527.8
38	.30000	.20000	349.00	.7303-02	.8818-02	.8818-02	.9000	.1760-03	.2125-03	.1286	.9333	524.9
38	.30000	.40000	350.00	.3831-02	.4696-02	.4696-02	.9000	.9376-04	.1132-03	.6866-01	.4986	523.4
38	30000	50000	351.00	.3547-02	.4281-02	.4281-02	.9000	.8548-04	.1032-03	.6264-01	.4436	522.9
38	.30000	.90000	352.00	.2897-02	.3495-02	.3495-02	.9000	.6981-04	.8421-04	.5123-01	.3848	521.7
38	40000	10000+00	353.00	.1045-01	.1262-01	.1262-01	.9000	.2518-03	.3040-03	.1841	1.358	524.5
38	.40000	20000	354.00	.7567-02	.9135-02	.9135-02	.9000	.1823-03	.2201-03	.1333	.9524	524.4
38	40000	.40000	355.00	.8431-09	.9552-09	.9552-09	.9000	.2032-10	.2302-10	.2173-07	1877-06	185.9
38	40000	50000	356.00	.4230-02	.5104-02	.5104-02	.9000	.1019-03	.1230-03	.7470-01	.5462	522.7
38	40000	.90000	358.00	.3450-02	.4163-02	.4163-02	.9000	.8315-04	.1003-03	.6101-01	.4613	521.9
38	.50000	.50000-01	359.00	.8745-02	.1056-01	.1056-01	.9000	.2107-03	.2545-03	.1539	1.214	525.4
38	.50000	.70000	360.00	.2345-02	.2828-02	.2828-02	.9000	.5650-04	.6816-04	.4149-01	.3340	521.3
38	.50000	90000	361.00	.4733-02	.5710-02	.5710-02	.9000	.1140-03	.1376-03	.8364-01	.5981	522.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT26)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
38	.60000	.50000-01	362.00	.8005-02	.9667-02	.9667-02	.9000	.1929-03	.2330-03	.1409	1.093	525 3
38	.60000	.10000+00	363 00	.7016-02	.8472-02	.8472-02	.9000	.1691-03	.2042-03	.1235	.9421	524 9
38	.60000	.20000	364 00	.4788-02	.5780-02	.5780-02	.9000	.1154-03	.1393-03	.8445-01	.6273	523 8
38	.60000	.40000	365 00	.5178-02	.6248-02	.6248-02	.9000	.1248-03	.1505-03	.9148-01	.6480	522 4
38	.60000	.50000	366 00	.4724-02	.5700-02	.5700-02	.9000	.1138-03	.1373-03	.8353-01	.5975	521 9
38	.60000	.70000	367 00	.3428-02	.4136-02	.4136-02	.9000	.8261-04	.9966-04	.6064-01	.4880	521 6
38	.60000	.90000	368 00	.4847-02	.5847-02	.5847-02	.9000	.1168-03	.1409-03	.8578-01	.6444	521 3
38	.70000	.50000-01	369 00	.1462-01	.1766-01	.1766-01	.9000	.3524-03	.4256-03	.2573	2.104	525 5
38	.70000	.70000	370 00	.5394-02	.6509-02	.6509-02	.9000	.1300-03	.1568-03	.9533-01	.7808	522 3
38	.70000	.90000	371 00	.3107-02	.3755-02	.3755-02	.9000	.7487-04	.9049-04	.5446-01	.4217	528 3
38	.80000	.50000-01	372 00	.5012-02	.6425-02	.6425-02	.9000	.1208-03	.1548-03	.6895-01	.4945	684 7
38	.80000	.10000+00	373 00	.1492-01	.1801-01	.1801-01	.9000	.3594-03	.4340-03	.2628	2.018	524 5
38	.80000	.40000	374 00	.8161-02	.9850-02	.9850-02	.9000	.1967-03	.2374-03	.1440	1.046	523 4
38	.80000	.50000	375 00	.8618-02	.1040-01	.1040-01	.9000	.2077-03	.2506-03	.1521	1.054	523 1
38	.80000	.70000	376 00	.9059-02	.1093-01	.1093-01	.9000	.2183-03	.2635-03	.1599	1.286	523 1
38	.80000	.90000	377 00	.9730-02	.1174-01	.1174-01	.9000	.2345-03	.2829-03	.1719	1.335	522.7
38	.90000	.10000+00	378 00	.2410-01	.2910-01	.2910-01	.9000	.5806-03	.7013-03	.4239	3.075	525 7
38	.90000	.30000	379 00	.7833-02	.9454-02	.9454-02	.9000	.1887-03	.2278-03	.1382	1.020	523.5
38	.90000	.50000	380 00	.2243-02	.2706-02	.2706-02	.9000	.5404-04	.6520-04	.3967-01	.2793	521 6
38	.90000	.70000	381 00	.9695-02	.1170-01	.1170-01	.9000	.2336-03	.2819-03	.1713	1.253	522.5
38	.90000	.90000	382 00	.1349-01	.1629-01	.1629-01	.9000	.3252-03	.3925-03	.2381	1.799	523.5
38	.95000	.30000	383 00	.8239-02	.9942-02	.9942-02	.9000	.1985-03	.2396-03	.1455	1.047	522 7
38	.95000	.50000	384 00	.1049-01	.1265-01	.1265-01	.9000	.2527-03	.3049-03	.1851	1.323	523.2
38	.95000	.90000	385 00	.1827-01	.2205-01	.2205-01	.9000	.4403-03	.5314-03	.3225	2.200	523 3

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## OH84B 60-0 VERTICAL TAIL

(R4UT26)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
67	2.005	7.980	40 04	2.021	434.1	1299.	94.54	.4519-01	2.014	3804.	.1290-02	.7608-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
67	.3499-01	.2868-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
67	.10000+00	.10000+00	340.00	.1699-01	.2046-01	.2046-01	.9000	.5946-03	.7160-03	.4552	3.238	533.0
67	.10000+00	.30000	341.00	.7275-02	.8755-02	.8755-02	.9000	.2546-03	.3063-03	.1956	1.439	530.3
67	.10000+00	.50000	342.00	.8560-02	.1030-01	.1030-01	.9000	.2995-03	.3604-03	.2303	1.752	529.8
67	.20000	.10000+00	343 00	.1867-01	.2248-01	.2248-01	.9000	.6534-03	.7866-03	.5013	3.625	531.5
67	.20000	.20000	344.00	.8563-02	.1030-01	.1030-01	.9000	.2996-03	.3605-03	.2305	1.713	529.5
67	.20000	.40000	345.00	.5472-02	.6580-02	.6580-02	.9000	.1915-03	.2302-03	.1476	1.059	527.7
67	.20000	.60000	346 00	.3220-02	.3872-02	.3872-02	.9000	.1127-03	.1355-03	.8701-01	6309	526 5
67	.20000	.80000	347.00	.3404-02	.4091-02	.4091-02	.9000	.1191-03	.1432-03	.9207-01	6573	525 7
67	.30000	.50000-01	348.00	.1534-01	.1847-01	.1847-01	.9000	.5368-03	.6463-03	.4116	3.106	532 0
67	.30000	.20000	349 00	.5161-02	.6207-02	.6207-02	.9000	.1806-03	.2172-03	.1391	1 008	528.1
67	.30000	.40000	350 00	.3392-02	.4078-02	.4078-02	.9000	.1187-03	.1427-03	.9162-01	6642	526 8
67	.30000	.50000	351 00	.2956-02	.3553-02	.3553-02	.9000	.1034-03	.1243-03	.7990-01	5649	526 1
67	.30000	.90000	352 00	.4003-02	.4811-02	.4811-02	.9000	.1401-03	.1683-03	.1083	8117	525 5
67	.40000	.10000+00	353 00	.8044-02	.9675-02	.9675-02	.9000	.2815-03	.3385-03	.2169	1.597	529 1
67	.40000	.20000	354 00	.4955-02	.5959-02	.5959-02	.9000	.1734-03	.2085-03	.1337	.9536	527.5
67	.40000	.50000	356 00	.2776-02	.3336-02	.3336-02	.9000	.9713-04	.1167-03	.7508-01	5482	525 7
67	.40000	.90000	358 00	.4863-02	.5844-02	.5844-02	.9000	.1772-03	.2045-03	.1316	.9928	525 5
67	.50000	.50000-01	359 00	.1200-01	.1444-01	.1444-01	.9000	.4199-03	.5053-03	.3225	2.538	530 6
67	.50000	.70000	360 00	.3193-02	.3837-02	.3837-02	.9000	.1117-03	.1343-03	.8643-01	.6944	525.1
67	.50000	.90000	361 00	.5849-02	.7031-02	.7031-02	.9000	.2047-03	.2460-03	.1581	1.128	526 2
67	.60000	.50000-01	362 00	.1731-01	.2084-01	.2084-01	.9000	.6056-03	.7291-03	.4644	3 589	531 9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT26)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
67	.60000	.10000+00	363.00	.1222-01	.1470-01	.1470-01	.9000	.4275-03	.5143-03	.3288	2.502	529.4
67	.60000	.20000	364.00	.7233-02	.8699-02	.8699-02	.9000	.2531-03	.3044-03	.1950	1.445	528.2
67	.60000	.40000	365.00	.7445-02	.8951-02	.8951-02	.9000	.2605-03	.3132-03	.2011	1.421	526.7
67	.60000	.50000	366.00	.6667-02	.8014-02	.8014-02	.9000	.2333-03	.2804-03	.1802	1.286	526.1
67	.60000	.70000	367.00	.4155-02	.4994-02	.4994-02	.9000	.1454-03	.1748-03	.1124	.9024	525.8
67	.60000	.90000	369.00	.6667-02	.8012-02	.8012-02	.9000	.2333-03	.2804-03	.1804	1.353	525.2
67	.70000	.50000-01	369.00	.2423-01	.2918-01	.2918-01	.9000	.8477-03	.1021-02	.6491	5.288	533.0
67	.70000	.70000	370.00	.6779-02	.8150-02	.8150-02	.9000	.2372-03	.2852-03	.1832	1.498	526.3
67	.70000	.90000	371.00	.3041-02	.3659-02	.3659-02	.9000	.1064-03	.1280-03	.8173-01	.6321	530.5
67	.80000	.50000-01	372.00	.2980-02	.3907-02	.3907-02	.9000	.1043-03	.1367-03	.5702-01	.3964	751.7
67	.80000	.10000+00	373.00	.2649-01	.3188-01	.3188-01	.9000	.9268-03	.1116-02	.7112	5.442	531.4
67	.80000	.40000	374.00	.1529-01	.1840-01	.1840-01	.9000	.5351-03	.6438-03	.4117	2.981	529.4
67	.80000	.50000	375.00	.1407-01	.1692-01	.1692-01	.9000	.4923-03	.5921-03	.3791	2.619	528.6
67	.80000	.70000	376.00	.1094-01	.1315-01	.1315-01	.9000	.3826-03	.4601-03	.2950	2.367	527.7
67	.80000	.90000	377.00	.1107-01	.1331-01	.1331-01	.9000	.3872-03	.4656-03	.2989	2.316	526.9
67	.90000	.10000+00	378.00	.4500-01	.5421-01	.5421-01	.9000	.1575-02	.1897-02	.1203	8.689	534.5
67	.90000	.30000	379.00	.1467-01	.1765-01	.1765-01	.9000	.5134-03	.6176-03	.3953	2.910	528.8
67	.90000	.50000	380.00	.2845-02	.3419-02	.3419-02	.9000	.9955-04	.1196-03	.7701-01	.5413	525.1
67	.90000	.70000	381.00	.1115-01	.1341-01	.1341-01	.9000	.3902-03	.4691-03	.3012	2.197	526.8
67	.90000	.90000	382.00	.1566-01	.1883-01	.1883-01	.9000	.5478-03	.6599-03	.4220	3.180	526.3
67	.95000	.30000	383.00	.1575-01	.1894-01	.1894-01	.9000	.5510-03	.6628-03	.4243	3.043	528.7
67	.95000	.50000	384.00	.1630-01	.1962-01	.1962-01	.9000	.5705-03	.6864-03	.4390	3.128	529.2
67	.95000	.90000	385.00	.2055-01	.2472-01	.2472-01	.9000	.7190-03	.8649-03	.5536	3.767	528.7



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT27)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
26	5059	7.900	40.02	4.008	100 6	1250.	92.69	.1118-01	.4885	3729.	.3256-03	.7459-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
26	.1712-01	.5687-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
26	.10000+00	.10000+00	340 00	.2265-01	.2737-01	.2737-C	.9000	.3876-03	.4686-03	.2805	2 002	526.1
26	.10000+00	30000	341.00	.8995-02	.1087-01	.1087-C	.9000	.1540-03	.1860-03	.1116	8233	524.7
26	.10000+00	50000	342.00	.4922-02	.5945-02	.5945-C2	.9000	.8424-04	.1018-03	.6117-01	4668	523.5
26	.20000	.10000+00	343 00	.2051-01	.2478-01	.2478-01	.9000	.3511-03	.4242-03	.2546	1.848	524.4
26	.20000	20000	344.00	.9899-02	.1196-01	.1196-01	.9000	.1694-03	.2047-03	.1230	.9165	523.9
26	.20000	.40000	345 00	.5578-02	.6736-02	.6736-02	.9000	.9547 04	.1153-03	.6938-01	.4991	523.0
26	.20000	.60000	346 00	.4357-02	.5261-02	.5261-02	.9000	.7458-04	.9006-04	.5425-01	.3942	522.3
26	.20000	80000	347 00	.1514-02	.1827-02	.1827-02	.9000	.2591-04	.3128-04	.1888-01	.1351	521.1
26	.30000	.50000-01	348 00	.2253-01	.2722-01	.2722-01	.9000	.3856-03	.4660-03	.2793	2.115	525.3
26	.30000	.20000	349 00	.9947-02	.1201-01	.1201-01	.9000	.1703-03	.2057-03	.1236	.8979	523.5
26	.30000	40000	350.00	.7189-02	.8681-02	.8681-02	.9000	.1230-03	.1486-03	.8945-01	.6499	522.7
26	.30000	50000	351 00	.7388-02	.8920-02	.8920-02	.9000	.1265-03	.1527-03	.9197-01	.6514	522.4
26	.30000	.90000	352 00	.2084-02	.2516-02	.2516-02	.9000	.3568-04	.4307-04	.2599-01	.1952	521 3
26	.40000	10000+00	353 00	.8782-02	.1061-01	.1061-01	.9000	.1503-03	.1816-03	.1092	8061	523.3
26	.40000	.20000	354 00	.7502-02	.9060-02	.9060-02	.9000	.1284-03	.1551-03	.9331-01	.6670	523.0
26	.40000	.40000	355 00	.4748-09	.5380-09	.5380-09	.9000	.8127-11	.9209-11	.8646-08	.7466-07	185 9
26	.40000	.50000	356 00	.6978-02	.8425-02	.8425-02	.9000	.1194-03	.1442-03	.8656-01	.6352	522 4
26	.40000	.90000	358.00	.3796-02	.4582-02	.4582-02	.9000	.6497-04	.7843-04	.4730-01	.3577	521 6
26	.50000	.50000-01	359 00	.6763-02	.8170-02	.8170-02	.9000	.1158-03	.1399-03	.8397-01	.6630	524 3
26	.50000	.70000	360 00	.2320-02	.2801-02	.2801-02	.9000	.3972-04	.4794-04	.2894-01	.2329	521 1
26	.50000	90000	361 00	.5671-02	.6848-02	.6848-02	.9000	.9708-04	.1172-03	.7060-01	.5048	522 4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT27)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
26	60000	.50000-01	362.00	.1221-01	.1475-01	.1475-01	.9000	.2090-03	.2525-03	.1515	1.175	524.7
26	.60000	.10000+00	363.00	.8739-02	.1056-01	.1056-01	.9000	.1496-03	.1807-03	.1085	.8277	524.3
26	60000	.20000	364.00	.3621-02	.4373-02	.4373-02	.9000	.6198-04	.7485-04	.4505-01	.3348	522.9
26	60000	.40000	365.00	.2372-02	.2864-02	.2864-02	.9000	.4061-04	.4902-04	.2957-01	.2095	521.6
26	60000	.50000	366.00	.1978-02	.2387-02	.2387-02	.9000	.3385-04	.4086-04	.2466-01	.1765	521.1
26	60000	.70000	367.00	.3542-02	.4276-02	.4276-02	.9000	.6063-04	.7318-04	.4415-01	.3554	521.4
26	60000	.90000	368.00	.7913-02	.9552-02	.9552-02	.9000	.1354-03	.1635-03	.9861-01	.7407	521.6
26	70000	.50000-01	369.00	.2235-01	.2700-01	.2700-01	.9000	.3825-03	.4622-03	.2771	2.267	525.2
26	.70000	.70000	370.00	.5017-02	.6057-02	.6057-02	.9000	.8588-04	.1037-03	.6252-01	.5123	521.6
26	.70000	.90000	371.00	.4447-02	.5378-02	.5378-02	.9000	.7612-04	.9205-04	.5499-01	.4261	527.2
26	80000	.10000+00	373.00	.1850-01	.2235-01	.2235-01	.9000	.3166-03	.3825-03	.2296	1.763	524.5
26	80000	.40000	374.00	.3300-02	.3905-02	.3905-02	.9000	.5649-04	.6821-04	.4109-01	.2986	522.3
26	80000	.50000	375.00	.3724-02	.4495-02	.4495-02	.9000	.6374-04	.7695-04	.4639-01	.3216	521.9
26	.80000	.70000	376.00	.6788-02	.8197-02	.8197-02	.9000	.1162-03	.1403-03	.8452-01	.6800	522.3
26	80000	.90000	377.00	.1262-01	.1524-01	.1524-01	.9000	.2160-03	.2608-03	.1571	1.220	522.3
26	90000	.10000+00	378.00	.2335-01	.2822-01	.2822-01	.9000	.3997-03	.4830-03	.2898	2.103	524.8
26	.90000	.30000	379.00	.5298-02	.6397-02	.6397-02	.9000	.9068-04	.1095-03	.6595-01	.4871	522.4
26	.90000	.50000	380.00	.4187-02	.5054-02	.5054-02	.9000	.7166-04	.8652-04	.5217-01	.3674	521.7
26	90000	.70000	381.00	.6789-02	.8197-02	.8197-02	.9000	.1162-03	.1403-03	.8459-01	.6188	521.8
26	.90000	.90000	382.00	.1371-01	.1656-01	.1656-01	.9000	.2347-03	.2835-03	.1705	1.289	523.2
26	.95000	.30000	383.00	.6679-02	.8065-02	.8065-02	.9000	.1143-03	.1380-03	.8317-01	.5986	522.2
26	95000	.50000	384.00	.5523-02	.6668-02	.6668-02	.9000	.9454-04	.1141-03	.6879-01	.4920	522.0
26	95000	.90000	385.00	.1940-01	.2344-01	.2344-01	.9000	.3321-03	.4012-03	.2411	1.645	523.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSC II C TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT27)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
41	1.011	7.940	40.00	4.013	204.3	1252.	91.98	.2198-01	.9699	3733.	.6450-03	.7401-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (P) *.0175
41	.2413-01	.4041-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG R
41	.10000+00	.10000+00	340.00	.1594-01	.1927-01	.1927-01	.9000	.3844-03	.4648-03	.2783	1.985	527.8
41	.10000+00	.30000	341.00	.5745-02	.6943-02	.6943-02	.9000	.1386-03	.1675-03	.1006	.7413	526.1
41	.10000+00	.50000	342.00	.3877-02	.4683-02	.4683-02	.9000	.9352-04	.1130-03	.6798-01	.5185	524.8
41	.20000	.10000+00	343.00	.2441-01	.2951-01	.2951-01	.9000	.5889-03	.7119-03	.4268	3.094	526.9
41	.20000	.20000	344.00	.1385-01	.1673-01	.1673-01	.9000	.3340-03	.4036-03	.2424	1.804	526.0
41	.20000	.40000	345.00	.6734-02	.8135-02	.8135-02	.9000	.1625-03	.1962-03	.1181	.8491	524.6
41	.20000	.60000	346.00	.2932-02	.3540-02	.3540-02	.9000	.7073-04	.8539-04	.5154-01	.3744	522.9
41	.20000	.80000	347.00	.9555-03	.1153-02	.1153-02	.9000	.2305-04	.2782-04	.1683-01	1204	521.6
41	.30000	.50000-01	348.00	.1966-01	.2377-01	.2377-01	.9000	.4743-03	.5734-03	.3436	2.599	527.3
41	.30000	.20000	349.00	.9217-02	.1113-01	.1113-01	.9000	.2224-03	.2686-03	.1617	1.174	524.5
41	.30000	.40000	350.00	.4841-02	.5845-02	.5845-02	.9000	.1168-03	.1410-03	.8503-01	.6175	523.5
41	.30000	.50000	351.00	.3783-02	.4567-02	.4567-02	.9000	.9125-04	.1102-03	.6651-01	.4710	522.8
41	.30000	.90000	352.00	.2264-02	.2732-02	.2732-02	.9000	.5462-04	.6592-04	.3987-01	.2995	521.7
41	.40000	.10000+00	353.00	.7188-02	.8681-02	.8681-02	.9000	.1734-03	.2094-03	.1262	.9309	524.1
41	.40000	.20000	354.00	.5537-02	.6687-02	.6687-02	.9000	.1336-03	.1613-03	.9724-01	.6948	523.8
41	.40000	.50000	356.00	.4010-02	.4841-02	.4841-02	.9000	.9673-04	.1168-03	.7050-01	.5155	522.8
41	.40000	.90000	358.00	.3675-02	.4437-02	.4437-02	.9000	.8867-04	.1070-03	.6468-01	.4890	522.2
41	.50000	.50000-01	359.00	.1478-01	.1786-01	.1786-01	.9000	.3566-03	.4308-03	.2590	2.044	525.3
41	.50000	.70000	360.00	.2689-02	.3246-02	.3246-02	.9000	.6488-04	.7831-04	.4736-01	.3811	521.7
41	.50000	.90000	361.00	.5126-02	.6189-02	.6189-02	.9000	.1237-03	.1493-03	.9013-01	.6443	522.9
41	.60000	.50000-01	362.00	.2196-01	.2655-01	.2655-01	.9000	.5299-03	.6404-03	.3842	2.977	526.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT27)

RUN NUMBER	7V/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
41	.60000	.10000+00	363 00	.1133-01	1368-01	.1368-C1	.9000	.2733-03	.3301-03	.1986	1.515	524.8
41	.60000	20000	364 00	.3341-02	4034-02	.4034-C2	.9000	.8059-04	.9732-04	.5870-01	.4361	523.4
41	.60000	40000	365 00	.2587-02	.3123-02	.3123-C2	.9000	.6242-04	.7534-04	.4554-C1	.3226	522.1
41	.60000	50000	366 00	.2401-02	.2898-02	.2898-C2	.9000	.5793-04	.6992-04	.4229-01	.3025	521.6
41	.60000	70000	367 00	.3249-02	.3922-02	.3922-C2	.9000	.7839-04	.9462-04	.5720-01	.4603	521.9
41	.60000	.90000	368 00	.6658-02	.8037-02	.8037-C2	.9000	.1606-03	.1939-03	.1172	.8800	522.1
41	.70000	.50000-01	369 00	.2169-01	.2621-01	.2621-C1	.9000	.5232-03	.6324-03	.3793	3.099	526.8
41	.70000	70000	370 00	.4750-02	.5734-02	.5734-C2	.9000	.1146-03	.1383-03	.8357-01	.6845	522.4
41	.70000	90000	371 00	.5052-02	.6108-02	.6108-C2	.9000	.1219-03	.1474-03	.8822-01	.6833	527.9
41	.80000	10000+00	373 00	.1489-01	.1799-01	.1799-C1	.9000	.3593-03	.4341-03	.2610	2.004	525.1
41	.80000	40000	374 00	.2720-02	.3283-02	.3283-C2	.9000	.6561-04	.7921-04	.4783-01	.3475	522.7
41	.80000	50000	375 00	.2855-02	.3446-02	.3446-C2	.9000	.6887-04	.8314-04	.5022-01	.3481	522.4
41	.80000	.70000	376 00	.5827-02	.7036-02	.7036-C2	.9000	.1406-03	.1697-03	.1024	.8234	523.2
41	.80000	90000	377 00	.1237-01	.1494-01	.1494-C1	.9000	.2984-03	.3604-03	.2173	1.687	523.5
41	.90000	10000+00	378 00	.2067-01	.2498-01	.2498-C1	.9000	.4987-03	.6025-03	.3621	2.627	525.5
41	.90000	.30000	379 00	.4903-02	.4832-02	.4832-C2	.9000	.9656-04	.1166-03	.7039-01	.5197	522.7
41	.90000	50000	380 00	.2832-02	.3418-02	.3418-C2	.9000	.6831-04	.8245-04	.4985-01	.3509	522.0
41	.90000	70000	381 00	.5358-02	.6468-02	.6468-C2	.9000	.1293-03	.1560-03	.9428-01	.6896	522.3
41	.90000	90000	382 00	.1368-01	.1652-01	.1652-C1	.9000	.3299-03	.3985-03	.2401	1.813	524.0
41	.95000	.30000	383 00	.5698-02	.6879-02	.6879-C2	.9000	.1375-03	.1659-03	.1002	.7210	522.7
41	.95000	50000	384 00	.4437-02	.5356-02	.5356-C2	.9000	.1070-03	.1292-03	.7806-01	.5582	522.3
41	.95000	90000	385 00	.1702-01	.2056-01	.2056-C1	.9000	.4107-03	.4960-03	.2990	2.039	523.7

DATE 23 FEB 80

OH94B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2745

OH94B 60-0 VERTICAL TAIL

(R4UT27)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 4.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
63	1.994	7.980	39 99	4.049	433.3	1302.	94.76	.4511-01	2.011	3808.	.1285-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
63	.3497-01	.2875-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
63	.10000+00	.10000+00	340 00	.1695-01	.2040-01	.2040-01	.9000	.5928-03	.7134-03	.4561	3.246	532.2
63	.10000+00	.30000	341 00	.8434-02	.1014-01	.1014-01	.9000	.2950-03	.3548-03	.2277	1.675	529.7
63	.10000+00	.50000	342 00	.6616-02	.7955-02	.7955-02	.9000	.2314-03	.2782-03	.1789	1.362	528.4
63	.20000	.10000+00	343 00	.2329-01	.2803-01	.2803-01	.9000	.8145-03	.9803-03	.6268	4.532	532.1
63	.20000	.20000	344 00	.1203-01	.1447-01	.1447-01	.9000	.4206-03	.5059-03	.3249	2.415	529.2
63	.20000	.40000	345 00	.5599-02	.6730-02	.6730-02	.9000	.1958-03	.2354-03	.1517	1.089	527.1
63	.20000	.60000	346 00	.3027-02	.3638-02	.3638-02	.9000	.1059-03	.1272-03	.8216-01	.5960	525.6
63	.20000	.80000	347 00	.1693-02	.2034-02	.2034-02	.9000	.5922-04	.7113-04	.4605-01	.3290	524.1
63	.30000	.50000-01	348 00	.1670-01	.2009-01	.2009-01	.9000	.5840-03	.7028-03	.4497	3.395	531.6
63	.30000	.20000	349 00	.6792-02	.8165-02	.8165-02	.9000	.2375-03	.2855-03	.1839	1.333	527.4
63	.30000	.40000	350 00	.4480-02	.5385-02	.5385-02	.9000	.1567-03	.1883-03	.1215	.8806	526.6
63	.30000	.50000	351 00	.3573-02	.4293-02	.4293-02	.9000	.1249-03	.1501-03	.9696-01	.6856	525.7
63	.30000	.90000	352 00	.2501-02	.3004-02	.3004-02	.9000	.8746-04	.1051-03	.6797-01	.5098	524.5
63	.40000	.10000+00	353 00	.7301-02	.8776-02	.8776-02	.9000	.2553-03	.3069-03	.1978	1.457	527.1
63	.40000	.20000	354 00	.5076-02	.6101-02	.6101-02	.9000	.1249-03	.2134-03	.1375	.9810	527.1
63	.40000	.50000	356 00	.4151-02	.4988-02	.4988-02	.9000	.1452-03	.1745-03	.1126	.8220	526.0
63	.40000	.90000	358 00	.3771-02	.4531-02	.4531-02	.9000	.1319-03	.1585-03	.1024	.7729	525.3
63	.50000	.50000-01	359 00	.1750-01	.2106-01	.2106-01	.9000	.6120-03	.7364-03	.4717	3.712	530.9
63	.50000	.70000	360 00	.2776-02	.3335-02	.3335-02	.9000	.9708-04	.1166-03	.7541-01	.6058	524.9
63	.50000	.90000	361 00	.4827-02	.5801-02	.5801-02	.9000	.1688-03	.2029-03	.1309	.9340	526.4
63	.60000	.50000-01	362 00	.1840-01	.2215-01	.2215-01	.9000	.6437-03	.7745-03	.4959	3.834	531.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT27)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
63	60000	.10000+00	363.00	.9669-02	.1163-01	.1163-01	.9000	.3382-03	.4066-03	.2614	1.990	528.5
63	60000	.20000	364.00	.4323-02	.5197-02	.5197-02	.9000	.1512-03	.1817-03	.1171	.8679	527.4
63	60000	.40000	365.00	.4029-02	.4841-02	.4841-02	.9000	.1409-03	.1693-03	.1093	.7724	526.2
63	60000	.50000	366.00	.3488-02	.4191-02	.4191-02	.9000	.1220-03	.1466-03	.9467-01	.6759	525.6
63	60000	.70000	367.00	.3532-02	.4244-02	.4244-02	.9000	.1235-03	.1484-03	.9586-01	.7699	525.6
63	60000	.90000	368.00	.6692-02	.8040-02	.8040-02	.9000	.2340-03	.2812-03	.1817	1.362	525.3
63	.70000	.50000-01	369.00	.1932-01	.2325-01	.2325-01	.9000	.6755-03	.8130-03	.5200	4.239	531.8
63	.70000	.70000	370.00	.5004-02	.6013-02	.6013-02	.9000	.1750-03	.2103-03	.1358	1.110	525.7
63	.70000	.90000	371.00	.2927-02	.3521-02	.3521-02	.9000	.1024-03	.1231-03	.7894-01	.6106	530.5
63	80000	.50000-01	372.00	.9751-03	.1224-02	.1224-02	.9000	.3410-04	.4281-04	.2182-01	.1582	661.8
63	80000	.10000+00	373.00	.1404-01	.1689-01	.1689-01	.9000	.4911-03	.5906-03	.3792	2.905	529.4
63	80000	.40000	374.00	.4498-02	.5407-02	.5407-02	.9000	.1573-03	.1891-03	.1218	.8831	527.3
63	.80000	.50000	375.00	.4451-02	.5349-02	.5349-02	.9000	.1557-03	.1871-03	.1206	.8343	526.7
63	.80000	.70000	376.00	.6300-02	.7572-02	.7572-02	.9000	.2203-03	.2648-03	.1708	1.371	526.6
63	80000	.90000	377.00	.1143-01	.1374-01	.1374-01	.9000	.3998-03	.4806-03	.3098	2.400	527.0
63	90000	.10000+00	378.00	.1877-01	.2258-01	.2258-01	.9000	.6563-03	.7897-03	.5056	3.657	531.2
63	.90000	.30000	379.00	.5908-02	.7101-02	.7101-02	.9000	.2066-03	.2483-03	.1601	1.180	526.8
63	90000	.50000	380.00	.2506-02	.3010-02	.3010-02	.9000	.8764-04	.1053-03	.6809-01	.4787	524.8
63	90000	.70000	381.00	.5612-02	.6743-02	.6743-02	.9000	.1963-03	.2358-03	.1524	1.112	525.4
63	.90000	.90000	382.00	.1150-01	.1383-01	.1383-01	.9000	.4023-03	.4836-03	.3114	2.348	527.4
63	.95000	.30000	383.00	.7389-02	.8881-02	.8881-02	.9000	.2584-03	.3106-03	.2002	1.437	526.9
63	.95000	.50000	384.00	.5901-02	.7091-02	.7091-02	.9000	.2064-03	.2480-03	.1600	1.142	526.4
63	.95000	.90000	385.00	.1525-01	.1834-01	.1834-01	.9000	.5335-03	.6413-03	.4129	2.810	527.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2747

## OH84B 60-0 VERTICAL TAIL

(R4UT28)

## VERT TAIL

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 10.00 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
29	.5059	7.900	40 08	9.969	100 5	1249.	92.62	.1117-01	.4879	3727.	.3255-03	.7453-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
29	.1710-01	.5687-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
29	.10000+00	.10000+00	340.00	.1365-01	.1652-01	.1652-0	.9000	.2335-03	.2825-03	.1680	1.197	529.2
29	.10000+00	30000	341.00	.6164-02	.7455-02	.7455-02	.9000	.1054-03	.1275-03	.7602-01	.5599	527.7
29	.10000+00	50000	342.00	.5145-02	.6223-02	.6223-02	.9000	.8801-04	.1064-03	.6346-01	.4833	527.6
29	.20000	.10000+00	343.00	.7809-02	.9446-02	.9446-02	.9000	.1336-03	.1616-03	.9628-01	.6976	527.9
29	.20000	20000	344.00	.7128-02	.8621-02	.8621-02	.9000	.1219-03	.1475-03	.8789-01	.6538	527.7
29	.20000	.40000	345.00	.7331-02	.8867-02	.8867-02	.9000	.1254-03	.1517-03	.9040-01	.6487	527.8
29	.20000	.60000	346.00	.4432-02	.5360-02	.5360-02	.9000	.7580-04	.9167-04	.5467-01	.3962	527.5
29	.30000	.50000-31	348.00	.5650-02	.6836-02	.6836-02	.9000	.9664-04	.1169-03	.6959-01	.5261	528.6
29	.30000	.20000	349.00	.4541-02	.5492-02	.5492-02	.9000	.7767-04	.9394-04	.5601-01	.4059	527.5
29	.30000	.40000	350.00	.5487-02	.6636-02	.6636-02	.9000	.9385-04	.1135-03	.6766-01	.4903	527.7
29	.30000	.50000	351.00	.4841-02	.5855-02	.5855-02	.9000	.8281-04	.1002-03	.5972-01	.4219	527.5
29	.30000	.90000	352.00	.2097-02	.2537-02	.2537-02	.9000	.3587-04	.4339-04	.2586-01	.1937	527.7
29	.40000	.10000+00	353.00	.9056-02	.1095-01	.1095-0	.9000	.1549-03	.1874-03	.1116	.8219	528.1
29	.40000	.20000	354.00	.3585-02	.4336-02	.4336-02	.9000	.6132-04	.7416-04	.4422-01	.3154	527.5
29	.40000	.50000	356.00	.1749-02	.2115-02	.2115-02	.9000	.2991-04	.3617-04	.2158-01	.1574	527.3
29	.40000	.90000	358.00	.3916-02	.4737-02	.4737-02	.9000	.6698-04	.8102-04	.4824-01	.3636	528.3
29	.50000	.50000-01	359.00	.2120-01	.2566-01	.2566-0	.9000	.3626-03	.4389-03	.2604	2.050	530.5
29	.50000	.70000	360.00	.1571-02	.1899-02	.1899-02	.9000	.2687-04	.3249-04	.1938-01	.1555	527.2
29	.50000	.90000	361.00	.5162-02	.6246-02	.6246-02	.9000	.8830-04	.1068-03	.6354-01	.4528	529.1
29	.60000	.50000-01	362.00	.1721-01	.2083-01	.2083-01	.9000	.2943-03	.3563-03	.2111	1.632	531.4
29	.60000	.10000+00	363.00	.1082-01	.1310-01	.1310-0	.9000	.1850-03	.2240-03	.1329	1.010	530.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT28)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF -R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
29	.60000	.20000	364.00	.3066-02	.3709-02	.3709-02	.9000	.5244-04	.6344-04	.3775-01	.2797	528.8
29	.60000	.40000	365.00	.9976-03	.1206-02	.1206-02	.9000	.1706-04	.2064-04	.1231-01	.8695-01	527.4
29	.60000	.50000	366.00	.6659-03	.8052-03	.8052-03	.9000	.1139-04	.1377-04	.8219-02	.5863-01	527.0
29	.60000	.70000	367.00	.2182-02	.2639-02	.2639-02	.9000	.3732-04	.4514-04	.2691-01	.2159	527.6
29	.60000	.90000	368.00	.6324-02	.7650-02	.7650-02	.9000	.1082-03	.1309-03	.7792-01	.5832	528.4
29	.70000	.50000-01	369.00	.1457-01	.1764-01	.1764-01	.9000	.2491-03	.3017-03	.1787	1.457	531.4
29	.70000	.70000	370.00	.3013-02	.3644-02	.3644-02	.9000	.5153-04	.6233-04	.3713-01	.3032	528.1
29	.70000	.90000	371.00	.3404-02	.4121-02	.4121-02	.9000	.5823-04	.7049-04	.4178-01	.3230	531.2
29	.80000	.50000-01	372.00	.1769-02	.2235-02	.2235-02	.9000	.3026-04	.3823-04	.1814-01	.1323	649.2
29	.80000	.10000+00	373.00	.1164-01	.1409-01	.1409-01	.9000	.1991-03	.2410-03	.1430	1.094	530.6
29	.80000	.40000	374.00	.2118-02	.2563-02	.2563-02	.9000	.3623-04	.4383-04	.2608-01	.1889	528.7
29	.80000	.50000	375.00	.2015-02	.2437-02	.2437-02	.9000	.3446-04	.4169-04	.2482-01	.1715	528.5
29	.80000	.70000	376.00	.4218-02	.5104-02	.5104-02	.9000	.7215-04	.8730-04	.5192-01	.4163	529.1
29	.80000	.90000	377.00	.8941-02	.1082-01	.1082-01	.9000	.1529-03	.1851-03	.1099	.8501	530.1
29	.90000	.10000+00	378.00	.1606-01	.1945-01	.1945-01	.9000	.2747-03	.3327-03	.1970	1.424	531.7
29	.90000	.30000	379.00	.3459-02	.4185-02	.4185-02	.9000	.5916-04	.7158-04	.4255-01	.3131	529.4
29	.90000	.50000	380.00	.9934-03	.1201-02	.1201-02	.9000	.1699-04	.2055-04	.1226-01	.8605-01	527.3
29	.90000	.70000	381.00	.4422-02	.5351-02	.5351-02	.9000	.7564-04	.9152-04	.5443-01	.3967	529.0
29	.90000	.90000	382.00	.1002-01	.1213-01	.1213-01	.9000	.1714-03	.2075-03	.1230	.9253	531.2
29	.95000	.30000	383.00	.5101-02	.6173-02	.6173-02	.9000	.8725-04	.1056-03	.6275-01	.4499	529.5
29	.95000	.50000	384.00	.3679-02	.4451-02	.4451-02	.9000	.6292-04	.7613-04	.4527-01	.3226	529.2
29	.95000	.90000	385.00	.1415-01	.1714-01	.1714-01	.9000	.2421-03	.2931-03	.1737	1.180	531.2



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2749

OH84B 60-0 VERTICAL TAIL

(R4UT28)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 10.00 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
44	1.020	7.940	39.96	10.01	207.3	1257.	92.34	.2230-01	.9842	3740.	.6518-03	.7431-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
44	.2432-01	.4022-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
44	.10000+00	.10000+00	340.00	.9490-02	.1146-01	.1146-01	.9000	.2308-03	.2788-03	.1685	1.202	526.7
44	.10000+00	.30000	341.00	.4232-02	.5110-02	.5110-02	.9000	.1029-03	.1243-03	.7526-01	.5550	525.3
44	.10000+00	.50000	342.00	.4710-02	.5687-02	.5687-02	.9000	.1145-03	.1383-03	.8382-01	.6392	524.9
44	.20000	.10000+00	343.00	.1099-01	.1326-01	.1326-01	.9000	.2672-03	.3226-03	.1955	1.419	524.9
44	.20000	.20000	344.00	.6962-02	.8406-02	.8406-02	.9000	.1693-03	.2044-03	.1239	.9231	524.8
44	.20000	.40000	345.00	.5145-02	.6210-02	.6210-02	.9000	.1251-03	.1310-03	.9169-01	.6593	523.9
44	.20000	.60000	346.00	.3140-02	.3789-02	.3789-02	.9000	.7637-04	.9215-04	.5605-01	.4072	522.7
44	.20000	.80000	347.00	.7015-03	.8461-03	.8461-03	.9000	.1706-04	.2058-04	.1254-01	.8975-01	521.3
44	.30000	.50000-01	348.00	.6667-02	.8049-02	.8049-02	.9000	.1621-03	.1957-03	.1186	.8985	525.0
44	.30000	.20000	349.00	.5886-02	.7105-02	.7105-02	.9000	.1431-03	.1728-03	.1049	.7616	523.9
44	.30000	.40000	350.00	.5273-02	.6363-02	.6363-02	.9000	.1282-03	.1547-03	.9402-01	.6828	523.4
44	.30000	.50000	351.00	.4171-02	.5033-02	.5033-02	.9000	.1014-03	.1224-03	.7445-01	.5272	522.7
44	.30000	.90000	352.00	.9628-03	.1161-02	.1161-02	.9000	.2341-04	.2824-04	.1721-01	.1293	521.4
44	.40000	.10000+00	353.00	.8963-02	.1082-01	.1082-01	.9000	.2180-03	.2631-03	.1598	1.179	523.7
44	.40000	.20000	354.00	.3723-02	.4492-02	.4492-02	.9000	.9053-04	.1092-03	.6644-01	.4750	522.7
44	.40000	.50000	356.00	.1961-02	.2365-02	.2365-02	.9000	.4768-04	.5752-04	.3503-01	.2562	522.0
44	.40000	.90000	358.00	.2534-02	.3057-02	.3057-02	.9000	.6163-04	.7434-04	.4528-01	.3424	521.9
44	.50000	.50000-01	359.00	.2652-01	.3204-01	.3204-01	.9000	.6450-03	.7791-03	.4711	3.715	526.4
44	.70000	.360.00	.1061-02	.1280-02	.1280-02	.1280-02	.9000	.2581-04	.3113-04	.1898-01	.1528	521.3
44	.50000	.90000	.3762-02	.4539-02	.4539-02	.4539-02	.9000	.9149-04	.1104-03	.6715-01	.4801	522.7
44	.60000	.50000-01	.2587-01	.3125-01	.3125-01	.3125-01	.9000	.6291-03	.7599-03	.4591	3.558	526.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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## OH84B 60-0 VERTICAL TAIL

(R4UT28)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
44	.60000	.10000+00	363.00	.1302-01	.1572-01	.1572-01	.9000	.3166-03	.3823-03	.2318	1.767	524.7
44	.60000	.20000	364.00	.2688-02	.3243-02	.3243-02	.9000	.6536-04	.7888-04	.4795-01	.3564	523.0
44	.60000	.40000	365.00	.7190-03	.8673-03	.8673-03	.9000	.1749-04	.2109-04	.1285-01	.9109-01	521.5
44	.60000	.50000	366.00	.5151-03	.6212-03	.6212-03	.9000	.1253-04	.1511-04	.3214-02	.6593-01	521.1
44	.60000	.70000	367.00	.1483-02	.1789-02	.1789-02	.9000	.3606-04	.4350-04	.2651-01	.2134	521.4
44	.60000	.90000	368.00	.5294-02	.6387-02	.6387-02	.9000	.1287-03	.1553-03	.9461-01	.7105	521.8
44	.70000	.50000-01	369.00	.2698-01	.3259-01	.3259-01	.9000	.6561-03	.7926-03	.4786	3.910	527.2
44	.70000	.70000	370.00	.2192-02	.2644-02	.2644-02	.9000	.5330-04	.6429-04	.3918-01	.3210	521.6
44	.70000	.90000	371.00	.6051-02	.7308-02	.7308-02	.9000	.1471-03	.1777-03	.1075	.8333	526.1
44	.80000	.50000-01	372.00	.2957-04	.3737-04	.3737-04	.9000	.7190-06	.9089-06	.4326-03	.3147-02	655.0
44	.80000	.10000+00	373.00	.1698-01	.2050-01	.2050-01	.9000	.4129-03	.4985-03	.3023	2.321	524.6
44	.80000	.40000	374.00	.1424-02	.1718-02	.1718-02	.9000	.3464-04	.4179-04	.2545-01	.1849	522.1
44	.80000	.50000	375.00	.1245-02	.1501-02	.1501-02	.9000	.3026-04	.3651-04	.2224-01	.1542	521.7
44	.80000	.70000	376.00	.2981-02	.3597-02	.3597-02	.9000	.7250-04	.8747-04	.5326-01	.4286	522.1
44	.80000	.90000	377.00	.7660-02	.9242-02	.9242-02	.9000	.1863-03	.2247-03	.1368	1.062	522.5
44	.90000	.10000+00	378.00	.2596-01	.3134-01	.3134-01	.9000	.6312-03	.7622-03	.4614	3.346	525.7
44	.90000	.30000	379.00	.3659-02	.4414-02	.4414-02	.9000	.8897-04	.1073-03	.6533-01	.4825	522.3
44	.90000	.50000	380.00	.9978-03	.1204-02	.1204-02	.9000	.2427-04	.2927-04	.1784-01	1256	521.5
44	.90000	.70000	381.00	.3082-02	.3718-02	.3718-02	.9000	.7496-04	.9041-04	.5511-01	.4032	521.4
44	.90000	.90000	382.00	.8891-02	.1073-01	.1073-01	.9000	.2162-03	.2603-03	.1586	1.199	522.9
44	.95000	.30000	383.00	.5788-02	.6983-02	.6983-02	.9000	.1408-03	.1698-03	.1034	.7439	522.3
44	.95000	.50000	384.00	.3070-02	.3704-02	.3704-02	.9000	.7467-04	.9007-04	.5488-01	.3926	521.6
44	.95000	.90000	385.00	.1233-01	.1488-01	.1488-01	.9000	.2998-03	.3617-03	.2198	1.500	523.4

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 VERTICAL TAIL

(R4UT28)

VERT TAIL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 10.00 ELEVON = .0000  
 BDFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
57	1.996	7.980	40.01	10.01	434.1	1303.	94.84	.4519-01	2.014	3810.	.1286-02	.7631-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
57	.3501-01	.2874-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
57	.10000+00	.10000+00	340.00	.7281-02	.8754-02	.8754-02	.9000	.2549-03	3065-03	.1975	1.408	528.1
57	.10000+00	.30000	341.00	.6191-02	.7441-02	.7441-02	.9000	.2167-03	2605-03	.1681	1.238	527.2
57	.10000+00	.50000	342.00	.7017-02	.8433-02	.8433-02	.9000	.2457-03	2952-03	.1906	1.452	526.9
57	.20000	.10000+00	343.00	.1049-01	.1261-01	.1261-01	.9000	.3673-03	.4414-03	.2847	2.063	527.4
57	.20000	.20000	344.00	.5499-02	.6607-02	.6607-02	.9000	.1925-03	2313-03	.1496	1.114	525.8
57	.20000	.40000	345.00	.4257-02	.5114-02	.5114-02	.9000	.1490-03	1790-03	.1159	.8328	525.2
57	.20000	.60000	346.00	.5250-02	.6306-02	.6306-02	.9000	.1838-03	2208-03	.1430	1.038	524.5
57	.20000	.80000	347.00	.2049-02	.2461-02	.2461-02	.9000	.7175-04	8614-04	.5594-01	3.999	523.0
57	.30000	.50000-01	348.00	.1009-01	.1212-01	.1212-01	.9000	.3532-03	4245-03	.2738	2.071	527.4
57	.30000	.20000	349.00	.5373-02	.6455-02	.6455-02	.9000	.1881-03	2260-03	.1463	1.061	525.2
57	.30000	.40000	350.00	.3510-02	.4215-02	.4215-02	.9000	.1229-03	1476-03	.9564-01	6.942	524.3
57	.30000	.50000	351.00	.3232-02	.3881-02	.3881-02	.9000	.1131-03	1359-03	.8812-01	6.237	523.8
57	.30000	.90000	352.00	.2710-02	.3254-02	.3254-02	.9000	.9489-04	1139-03	.7399-01	5.554	523.0
57	.40000	.10000+00	353.00	.9197-02	.1105-01	.1105-01	.9000	.3220-03	3866-03	.2503	1.846	525.2
57	.40000	.20000	354.00	.3611-02	.4337-02	.4337-02	.9000	.1264-03	1518-03	.9839-01	7.028	524.3
57	.40000	.40000	355.00	.1486-07	.1682-07	.1682-07	.9000	.5201-09	5888-09	.5809-06	5016 05	185.9
57	.40000	.50000	356.00	.2166-02	.2600-02	.2600-02	.9000	.7582-04	9104-04	.5910-01	4.320	523.2
57	.40000	.90000	358.00	.3799-02	.4562-02	.4562-02	.9000	.1330-03	1597-03	.1036	.7827	523.6
57	.50000	.50000-01	359.00	.2403-01	.2889-01	.2889-01	.9000	.8412-03	1012-02	.6507	5.125	523.1
57	.50000	.70000	360.00	.2237-02	.2685-02	.2685-02	.9000	.7830-04	9399-04	.6109-01	.4914	522.5
57	.50000	.90000	361.00	.4805-02	.5772-02	.5772-02	.9000	.1682-03	2021-03	.1309	.9348	524.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2752

## OH84B 60-0 VERTICAL TAIL

(R4UT28)

RUN NUMBER	ZV/BV	XV/CV	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
57	.60000	.50000-01	362.00	.2450-01	.2946-01	.2946-0	.9000	.8576-03	.1031-02	.6632	5.133	529.3
57	.60000	.10000+00	363.00	.1127-01	.1354-01	.1354-0	.9000	.3945-03	.4740-03	.3064	2.335	526.0
57	.60000	.20000	364.00	.2968-02	.3565-02	.3565-02	.9000	.1039-03	.1248-03	.8088-01	.6007	524.3
57	.60000	.40000	365.00	.1259-02	.1512-02	.1512-02	.9000	.4408-04	.5292-04	.3440-01	.2437	522.4
57	.60000	.50000	366.00	.1021-02	.1226-02	.1226-02	.9000	.3575-04	.4291-04	.2792-01	.1997	521.8
57	.60000	.70000	367.00	.2446-02	.2937-02	.2937-02	.9000	.8565-04	.1028-03	.6681-01	.5374	522.6
57	.60000	.90000	368.00	.6346-02	.7619-02	.7619-02	.9000	.2222-03	.2667-03	.1732	1.300	523.0
57	.70000	.50000-01	369.00	.2682-01	.3226-01	.3226-01	.9000	.9388-03	.1129-02	.7251	5.916	530.3
57	.70000	.70000	370.00	.2800-02	.3362-02	.3362-02	.9000	.9803-04	.1177-03	.7645-01	.6260	522.9
57	.70000	.90000	371.00	.4724-02	.5680-02	.5680-02	.9000	.1654-03	.1989-03	.1280	.9913	528.6
57	.80000	.50000-01	372.00	.8960-03	.1079-02	.1079-02	.9000	.3137-04	.3779-04	.2404-01	.1854	536.2
57	.80000	.10000+00	373.00	.1763-01	.2119-01	.2119-	.9000	.6173-03	.7418-03	.4791	3.675	526.5
57	.80000	.40000	374.00	.1815-02	.2179-02	.2179-02	.9000	.6354-04	.7629-04	.4953-01	.3597	523.2
57	.80000	.50000	375.00	.1508-02	.1810-02	.1810-02	.9000	.5279-04	.6337-04	.4117-01	.2853	522.6
57	.80000	.70000	376.00	.3618-02	.4345-02	.4345-02	.9000	.1267-03	.1521-03	.9867-01	.7932	523.7
57	.80000	.90000	377.00	.8956-02	.1076-01	.1076-	.9000	.3135-03	.3766-03	.2439	1.892	524.7
57	.90000	.10000+00	378.00	.2725-01	.3276-01	.3276-	.9000	.9540-03	.1147-02	.7382	5.346	528.8
57	.90000	.30000	379.00	.4620-02	.5549-02	.5549-02	.9000	.1618-03	.1943-03	.1259	.9293	524.1
57	.90000	.50000	380.00	.3125-02	.3752-02	.3752-02	.9000	.1094-03	.1314-03	.8529-01	.6001	523.2
57	.90000	.70000	381.00	.3368-02	.4043-02	.4043-02	.9000	.1179-03	.1415-03	.9195-01	.6723	522.8
57	.90000	.90000	382.00	.8544-02	.1026-01	.1026-01	.9000	.2991-03	.3593-03	.2326	1.756	525.1
57	.95000	.30000	383.00	.6721-02	.8071-02	.8071-02	.9000	.2353-03	.2826-03	.1832	1.317	524.0
57	.95000	.50000	384.00	.3906-02	.4690-02	.4690-02	.9000	.1368-03	.1642-03	.1066	.7616	523.4
57	.95000	.90000	385.00	.1122-01	.1348-01	.1348-0	.9000	.3927-03	.4718-03	.3053	2.081	525.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSOINIC TUNNEL

PAGE 2753

OH84B 60-0 SPEEDBRAKE CAVITY

(R4UU01)

SPDBRK CAVITY

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
9	1.019	7.940	24.97	.5591-06	205.0	1248.	91.68	.2205-01	.9732	3727	.6492-03	.7378-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
9	.2415-01	4026-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	DUMMY	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
9	1.0000	1397.0	.33326-02	.4039-02	.4039-02	.9000	.8049-04	.9755-04	.5743-01	.4044	534.2
9	1.0000	1398.0	.29091-02	.3526-02	.3526-02	.9000	.7026-04	.8515-04	.5013-01	.3598	534.2
9	1.0000	1399.0	.10350-02	.1254-02	.1254-02	.9000	.2500-04	.3029-04	.1784-01	.1281	533.9
9	1.0000	1400.0	.56784-03	.6881-03	.6881-03	.9000	.1372-04	.1662-04	.9788-02	.7025-01	534.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC V&amp;F HYPERSONIC TUNNEL

PAGE 2754

OH84B 60-0 SPEEDBRAKE CAVITY

(R4UU01)

SPDBRK CAVITY

PARAMETRIC DATA

MACH = 8.010    ALPHA = 25.00    BETA = .0000-    ELEVON = .0000  
 BDFLAP = .0010    SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
8	1.994	7.980	24.96	.5594-06	433.2	1302.	94.76	.4510-01	2.010	3808.	.1284-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
8	.3497-01	.2875-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	DUMMY	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TC	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
8	1.0000	1397.0	.40251-02	.4845-02	.4845-02	.9000	.1408-03	.1694-03	.1083	.7632	532.3
8	1.0000	1398.0	.26940-02	.3242-02	.3242-02	.9000	.9421-04	.1134-03	.7254-01	5212	531.7
8	1.0000	1399.0	.96593-03	.1162-02	.1162-02	.9000	.3378-04	.4064-04	.2603-01	.1871	531.0
8	1.0000	1400.0	.82541-03	.9932-03	.9932-03	.9000	.2886-04	.3473-04	.2224-01	.1599	531.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2755

OH84B 60-0 SPEEDBRAKE CAVITY

(R4UU01)

SPDBRK CAVITY

PARAMETRIC DATA

MACH = 8.010    ALPHA = 25.00    BETA = .0000    ELEVON = .0000  
BDFLAP = .0010    SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG.	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
7	2.996	7.990	24.92	.5613-06	666.7	1320.	95.85	6885-01	3.077	3835.	.1939-02	.7713-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) =.0175
7	.4336-01	.2344-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	DUMMY	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
7	1.0000	1397.0	.42234-02	.5083-02	.5083-02	.9000	.1831-03	.2204-03	.1429	1.004	539.4
7	1.0000	1398.0	.26873-02	.3234-02	.3234-02	.9000	.1165-03	.1402-03	.9103-01	.6518	538.5
7	1.0000	1399.0	.81672-03	.9825-03	.9825-03	.9000	.3542-04	.4260-04	.2770-01	.1985	537.4
7	1.0000	1400.0	.10609-02	.1276-02	.1276-02	.9000	.4601-04	.5534-04	.3599-01	.2579	537.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2756

OH84B 60-0 SPEEDBRAKE CAVITY

(R40001)

SPDBRK CAVITY

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. "	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
6	3.633	8.000	24.95	.1253-01	846 7	1358.	98.38	.8672-01	3.885	3890.	.2379-02	.7917-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
6	.4897-01	.2122-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	DUMMY	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
6	1.0000	1397.0	.44754-02	.5355-02	.5355-02	.9000	.2192-03	.2623-03	.1811	1.277	531.5
6	1.0000	1398.0	.29086-02	.3480-02	.3480-02	.9000	.1424-03	.1704-03	.1178	.8465	530.9
6	1.0000	1399.0	.98022-03	.1172-02	.1172-02	.9000	.4800-04	.5741-04	.3977-01	.2861	529.2
6	1.0000	1400.0	.12681-02	.1517-02	.1517-02	.9000	.6210-04	.7427-04	.5146-01	.3702	529.1



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2757

OH84B 60-0 WINDOWS

(R4UW01)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
5	3.644	8.000	24.96	.8346-02	847.3	1356.	98.24	.8678-01	3.888	3887.	.2384-02	.7905-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
5	.4898-01	.2119-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
5	1.0000	191.00	.17746-01	.2134-01	2134-01	.9000	.8691-03	.1045-02	.6994	5.009	551.0
5	1.0000	192.00	.50842-01	.6140-01	6140-01	.9000	.2490-02	3007-02	1.964	13.95	567.0
5	1.0000	193.00	.25628-01	.3087-01	3087-01	.9000	.1255-02	1512-02	1.002	7.387	557.6
5	1.0000	194.00	.11356-01	.1365-01	1365-01	.9000	.5562-03	6686-03	.4484	3.558	549.5
5	1.0000	195.00	.43018-01	.5192-01	5192-01	.9000	.2107-02	2543-02	1.667	12.25	564.6
5	2.0000	196.00	.10670-01	.1283-01	1283-01	.9000	.5226-03	6283-03	.4213	3.120	549.5
5	2.0000	197.00	.37919-01	.4571-01	4571-01	.9000	.1857-02	2239-02	1.477	10.88	560.1
5	2.0000	198.00	.20165-01	.2427-01	2427-01	.9000	.9876-03	.1189-02	.7913	5.845	554.5
5	2.0000	199.00	.24555-01	.2956-01	2956-01	.9000	.1203-02	.1448-02	.9630	7.113	554.9
5	2.0000	200.00	.84517-02	.1016-01	1016-01	.9000	.4139-03	.4976-03	.3338	2.558	549.2
5	3.0000	201.00	.11712-01	.1407-01	1407-01	.9000	.5736-03	.6893-03	.4634	3.553	547.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2758

OH84B 60-0 WINDOWS

(R4UW02)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
157	2.008	7.980	29.94	-4.034	434.8	1299.	94.54	.4527-01	2.018	3804.	.1292-02	.7608-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
157	.3502-01	.2866-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
157	1.0000	191.00	.30778-02	.3711-02	.3711-02	.9000	.1078-03	.1300-03	.8205-01	5917	537.4
157	1.0000	192.00	.90109-02	.1088-01	.1088-01	.9000	.3156-03	.3809-03	.2388	1.718	541.9
157	1.0000	193.00	.51468-02	.6209-02	.6209-02	.9000	.1802-03	.2174-03	.1368	1.019	539.4
157	1.0000	194.00	.29066-02	.3504-02	.3504-02	.9000	.1018-03	.1227-03	.7752-01	.6190	537.1
157	1.0000	195.00	.78706-02	.9498-02	.9498-02	.9000	.2756-03	.3326-03	.2089	1.553	540.9
157	2.0000	196.00	.37471-02	.4518-02	.4518-02	.9000	.1312-03	.1582-03	.9988-01	.7441	537.5
157	2.0000	197.00	.84259-02	.1017-01	.1017-01	.9000	.2951-03	.3562-03	.2234	1.662	541.4
157	2.0000	198.00	.71524-02	.8628-02	.8628-02	.9000	.2505-03	.3022-03	.1902	1.415	539.5
157	2.0000	199.00	.91883-02	.1109-01	.1109-01	.9000	.3218-03	.3883-03	.2439	1.815	540.5
157	2.0000	200.00	.74316-02	.8964-02	.8964-02	.9000	.2603-03	.3139-03	.1977	1.523	539.0
157	3.0000	201.00	.11132-01	.1343-01	.1343-01	.9000	.3899-03	.4703-03	.2959	2.278	539.7

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2759

OH84B 60-0 WINDOWS

(R4UW02)

WINDOWS

PARAMETRIC DATA

MACH = 8.0110    ALPHA = 30.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .00110    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
118	3.023	7.990	29.94	-4.046	673.4	1321.	95.92	.6954-01	3.108	3836.	.1957-02	.7719-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
118	.4359-01	.2333-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.8 TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
118	1.0000	191.00	.30525-02	.3672-02	.3672-02 .9000	.1331-03	.1601-03	.1041	.7504	538.2
118	1.0000	192.00	.93395-02	.1125-01	.1125-01 .9000	.4071-03	.4904-03	.3165	2.275	543.3
118	1.0000	193.00	.61775-02	.7436-02	.7436-02 .9000	.2693-03	.3241-03	.2102	1.564	540.2
118	1.0000	194.00	.40831-02	.4912-02	.4912-02 .9000	.1780-03	.2141-03	.1393	1.112	538.1
118	1.0000	195.00	.11192-01	.1348-01	.1348-01 .9000	.4878-03	.5877-03	.3790	2.815	543.7
118	2.0000	196.00	.54113-02	.6510-02	.6510-02 .9000	.2359-03	.2838-03	.1845	1.374	538.3
118	2.0000	197.00	.11982-01	.1443-01	.1443-01 .9000	.5223-03	.6292-03	.4059	3.016	543.4
118	2.0000	198.00	.86584-02	.1042-01	.1042-01 .9000	.3774-03	.4543-03	.2945	2.191	540.4
118	2.0000	199.00	.11691-01	.1408-01	.1408-01 .9000	.5096-03	.6136-03	.3970	2.952	541.6
118	2.0000	200.00	.85322-02	.1027-01	.1027-01 .9000	.3719-03	.4476-03	.2904	2.235	539.9
118	3.0000	201.00	.12974-01	.1562-01	.1562-01 .9000	.5655-03	.6808-03	.4411	3.394	540.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2760

OH84B 60-0 WINDOWS

(R4UW02)

WINDOWS

PARAMETRIC DATA

MACH = 8.0000 ALPHA = 30.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
131	3.694	8.000	29.96	-4.050	855.1	1352.	97.95	.8759-01	3.924	3881.	.2414-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
131	.4918-01	2106-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
131	1.0000	191.00	.30137-02	.3618-02	.3618-02	.9000	.1432-03	.1779-03	.1199	.8619	542.9
131	1.0000	192.00	.87062-02	.1047-01	.1047-01	.9000	.4281-03	.5150-03	.3433	2.460	549.9
131	1.0000	193.00	.60032-02	.7214-02	.7214-02	.9000	.2952-03	.3548-03	.2377	1.763	546.4
131	1.0000	194.00	.46513-02	.5584-02	.5584-02	.9000	.2287-03	.2746-03	.1851	1.474	542.5
131	1.0000	195.00	.11927-01	.1435-01	.1435-01	.9000	.5865-03	.7056-03	.4698	3.477	550.7
131	2.0000	196.00	.54205-02	.6509-02	.6509-02	.9000	.2666-03	.3201-03	.2154	1.600	543.5
131	2.0000	197.00	.13227-01	.1591-01	.1591-01	.9000	.6505-03	.7824-03	.5213	3.859	550.2
131	2.0000	198.00	.83603-02	.1005-01	.1005-01	.9000	.4111-03	.4941-03	.3309	2.453	546.9
131	2.0000	199.00	.12190-01	.1465-01	.1465-01	.9000	.5995-03	.7206-03	.4821	3.574	547.5
131	2.0000	200.00	.84269-02	.1013-01	.1013-01	.9000	.4144-03	.4979-03	.3340	2.564	545.7
131	3.0000	201.00	.13390-01	.1609-01	.1609-01	.9000	.6585-03	.7912-03	.5309	4.075	545.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERS( NIC TUNNEL

PAGE 2761

OH84B 60-0 WINDOWS

(R4UW03)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -2.000 ELEVON = .0000  
 BOFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG P	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
154	2.002	7 980	29 96	-2 027	435 4	1303	94.84	.4533-01	2.021	3810.	.1290-02	.7631-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
154	.3506-01	.2869-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
154	1 0000	191.00	.88285-02	.1065-01	.1065-01	.9000	.3096-03	.3735-03	.2357	1.696	541.3
154	1 0000	192.00	.15234-01	.1840-01	.1840-01	.9000	.5341-03	.6451-03	.4045	2.905	545.3
154	1 0000	193 00	.76495-02	.9229-02	.9229-02	.9000	.2682-03	.3236-03	.2041	1.518	541.6
154	1.0000	194 00	.38354-02	.4624-02	.4624-02	.9000	.1345-03	.1621-03	.1027	.8197	538.7
154	1.0000	195 00	.10184-01	.1229-01	.1229-01	.9000	.3571-03	.4310-03	.2712	2.015	543.1
154	2.0000	196 00	.39299-02	.4738-02	.4738-02	.9000	.1378-03	.1661-03	.1053	.7838	538.7
154	2 0000	197.00	.90945-02	.1097-01	.1097-01	.9000	.3189-03	.3848-03	.2425	1.802	542.2
154	2.0000	198 00	.76141-02	.9185-02	.9185-02	.9000	.2670-03	.3220-03	.2034	1.513	540.8
154	2.0000	199 00	.84635-02	.1021-01	.1021-01	.9000	.2968-03	.3580-03	.2260	1.681	541.1
154	2 0000	200 00	.55898-02	.6740-02	.6740-02	.9000	.1960-03	.2363-03	.1496	1.152	539.6
154	3 0000	201 00	.60131-02	.7250-02	.7250-02	.9000	.2108-03	.2542-03	.1610	1.240	539.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2762

OH84B 60-0 WINDOWS

(R4UW03)

WINDOWS

PARAMETRIC DATA

MACH = 8.110    ALPHA = 30.00    BETA = -2.000    ELEVON = .0000  
 BOFLAP = .0110    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
115	3.006	7.990	29.95	-2.017	672.0	1324.	96.14	.6940-01	3.101	3841.	.1948-02	.7736-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175										
115	4356-01	.2339-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TC	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
115	1.0000	191.00	.83359-02	.1003-01	.1003-01	9000	.3631-03	.4369-03	.2845	2.048	540.3
115	1.0000	192.00	.16291-01	.1963-01	.1963-01	9000	.7096-03	.8552-03	.5519	3.963	545.9
115	1.0000	193.00	.73701-02	.8871-02	.8871-02	9000	.3210-03	.3864-03	.2512	1.868	541.3
115	1.0000	194.00	.30544-02	.3673-02	.3673-02	9000	.1330-03	.1600-03	.1046	.8350	537.5
115	1.0000	195.00	.10557-01	.1271-01	.1271-01	9000	.4598-03	.5538-03	.3586	2.664	543.8
115	2.0000	196.00	.34291-02	.4123-02	.4123-02	9000	.1494-03	.1796-03	.1174	.8749	537.5
115	2.0000	197.00	.90283-02	.1087-01	.1087-01	9000	.3933-03	.4734-03	.3074	2.286	541.9
115	2.0000	198.00	.10051-01	.1210-01	.1210-01	9000	.4378-03	.5270-03	.3425	2.547	541.4
115	2.0000	199.00	.12627-01	.1520-01	.1520-01	9000	.5500-03	.6622-03	.4297	3.193	542.5
115	2.0000	200.00	.59695-02	.7180-02	.7180-02	9000	.2600-03	.3128-03	.2041	1.572	538.7
115	3.0000	201.00	.66545-02	.8004-02	.8004-02	9000	.2899-03	.3487-03	.2276	1.753	538.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 WINDOWS

(R4UW03)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
128	3.686	8.000	29.95	-2.016	854.2	1353	98 02	8750-01	3 920	3883.	.2409-02	.7888-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
128	4916-01	.2108-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
128	1 0000	191 00	.86468-02	.1039-01	1039-01	.9000	.4251-03	.5106-03	3433	2 466	545.1
128	1.0000	192.00	.16530-01	.1990-01	1990-01	.9000	.8126-03	.9781-03	6495	4.646	553.4
128	1 0000	193 00	.63990-02	.7692-02	.7692-02	9000	.3146-03	.3781-03	.2531	1.876	548.0
128	1 0000	194 00	.29433-02	.3532-02	.3532-02	9000	.1447-03	.1736-03	.1174	.9357	541.1
128	1.0000	195 00	.10814-01	.1301-01	.1301-01	.9000	.5316-03	.6394-03	.4264	3 156	550.6
128	2 0000	196 00	.35199-02	.4225-02	.4225-02	9000	.1730-03	.2077-03	.1403	1.043	541 8
128	2.0000	197 00	.10063-01	.1210-01	.1210-01	9000	.4947-03	.5947-03	3981	2 950	548 0
128	2 0000	198 00	.11177-01	.1344-01	.1344-01	9000	.5494-03	.6605-03	4422	3 277	547 9
128	2 0000	199 00	.14882-01	.1789-01	.1789-01	9000	.7316-03	.8794-03	5888	4 365	547.8
128	2 0000	200 00	.55903-02	.6711-02	.6711-02	9000	.2748-03	.3299-03	.2226	1.711	542 8
128	3 0000	201 00	.74557-02	.8949-02	.8949-02	9000	.3665-03	.4399-03	2970	2 284	542 2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 WINDOWS

(R4UW04)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -1.000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
151	1.981	7.980	29 94	-1 004	435 3	1312	95.49	.4532-01	2 020	3823.	.1281-02	.7684-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
151	.3510-01	.2882-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
151	1.0000	191.00	.16496-01	.1988-01	.1988-01	.9000	.5790-03	.6979-03	.4459	3.209	541.6
151	1.0000	192.00	.24644-01	.2973-01	.2973-01	.9000	.8650-03	.1043-02	.6634	4.766	544.7
151	1.0000	193.00	.11525-01	.1389-01	.1389-01	.9000	.4046-03	.4874-03	.3122	2.323	540.1
151	1.0000	194.00	.48349-02	.5821-02	.5821-02	.9000	.1697-03	.2043-03	.1314	1.049	537.2
151	1.0000	195.00	.15406-01	.1857-01	.1857-01	.9000	.5408-03	.6518-03	.4162	3.094	542.0
151	2.0000	196.00	.43644-02	.5254-02	.5254-02	.9000	.1532-03	.1844-03	.1186	.8841	537.2
151	2.0000	197.00	.11720-01	.1412-01	.1412-01	.9000	.4114-03	.4957-03	.3172	2.360	540.6
151	2.0000	198.00	.74185-02	.8934-02	.8934-02	.9000	.2604-03	.3136-03	.2014	1.500	538.3
151	2.0000	199.00	.85623-02	.1031-01	.1031-01	.9000	.3005-03	.3620-03	.2322	1.729	538.9
151	2.0000	200.00	.54328-02	.6541-02	.6541-02	.9000	.1907-03	.2296-03	.1476	1.138	537.6
151	3.0000	201.00	.62889-02	.7572-02	.7572-02	.9000	.2207-03	.2658-03	.1709	1.317	537.6



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2765

OH84B 60-0 WINDOWS

(R4UW04)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
112	2.995	7.990	29 94	-1.000	673.3	1329	96.50	.6953-01	3.107	3848.	.1945-02	.7766-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
112	.4363-01	.2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TC	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
112	1.0000	191.00	.17138-01	.2063-01	.2063-01	.9000	.7478-03	.8999-03	.5875	4 224	543.0
112	1.0000	192.00	.27542-01	.3320-01	.3320-01	.9000	.1202-02	.1448-02	.9371	6 718	548.9
112	1.0000	193.00	.10735-01	.1292-01	.1292-01	.9000	.4684-03	.5635-03	.3686	2.740	541.8
112	1.0000	194.00	.40629-02	.4883-02	.4883-02	.9000	.1773-03	.2131-03	.1402	1 119	537.7
112	1.0000	195.00	.15583-01	.1876-01	.1876-01	.9000	.6799-03	.8186-03	.5331	3 957	544.6
112	2.0000	196.00	.38461-02	.4622-02	.4622-02	.9000	.1678-03	.2017-03	.1328	.9893	537.4
112	2.0000	197.00	.12097-01	.1456-01	.1456-01	.9000	.5278-03	.6352-03	.4147	3 081	542.9
112	2.0000	198.00	.80523-02	.9684-02	.9684-02	.9000	.3513-03	.4225-03	.2771	2.062	540.0
112	2.0000	199.00	.10443-01	.1256-01	.1256-01	.9000	.4556-03	.5480-03	.3591	2 672	540.5
112	2.0000	200.00	.55416-02	.6661-02	.6661-02	.9000	.2418-03	.2906-03	.1912	1 473	537.9
112	3.0000	201.00	.71370-02	.8580-02	.8580-02	.9000	.3114-03	.3743-03	.2460	1 895	538.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2766

OH84B 60-0 WINDOWS

(R4UW04)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -1.000    ELEVON = .0000  
 BDCLAP = .0010    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
125	3.687	8.000	29.96	-98.24	854.5	1353.	98.02	.8753-01	3.921	3883	.2410-02	7888-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = .0175
125	.4917-01	.2107-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TC	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
125	1.0000	191.00	.19034-01	.2288-01	.2288-01	.9000	.9358-03	.1125-02	.7528	5.399	548.3
125	1.0000	192.00	.31679-01	.3815-01	.3815-01	.9000	.1558-02	.1876-02	1.242	8.880	555.0
125	1.0000	193.00	.10915-01	.1312-01	.1312-01	.9000	.5367-03	.6449-03	.4326	3.208	546.6
125	1.0000	194.00	.43244-02	.5190-02	.5190-02	.9000	.2126-03	.2552-03	.1725	1.374	541.5
125	1.0000	195.00	.17212-01	.2070-01	.2070-01	.9000	.8463-03	.1018-02	.6791	5.027	550.2
125	2.0000	196.00	.35874-02	.4304-02	.4304-02	.9000	.1764-03	.2116-03	.1433	1.066	540.5
125	2.0000	197.00	.13291-01	.1598-01	.1598-01	.9000	.6535-03	.7855-03	.5260	3.899	547.7
125	2.0000	198.00	.10059-01	.1208-01	.1208-01	.9000	.4946-03	.5941-03	.3994	2.964	545.2
125	2.0000	199.00	.13016-01	.1564-01	.1564-01	.9000	.6400-03	.7689-03	.5162	3.830	546.0
125	2.0000	200.00	.60820-02	.7300-02	.7300-02	.9000	.2990-03	.3589-03	.2424	1.864	541.9
125	3.0000	201.00	.81216-02	.9748-02	.9748-02	.9000	.3993-03	.4793-03	.3237	2.490	542.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 WINDOWS

(R4UW06)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
12	.5316	7.900	29.95	.7364-02	104.3	1239	91.88	.1159-01	.5065	3712.	.3406-03	.7393-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
12	.1740-01	.5555-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TC	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU' FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
12	1.0000	191.00	.12810-01	.1557-01	.1557-01	.9000	.2229-03	.2709-03	.1559	1.123	539.5
12	1.0000	192.00	.23167-01	.2817-01	.2817-01	.9000	.4032-03	.4902-03	.2813	2.025	540.9
12	1.0000	193.00	.12786-01	.1554-01	.1554-01	.9000	.2225-03	.2704-03	.1556	1.158	539.4
12	1.0000	194.00	.58266-02	.7079-02	.7079-02	.9000	.1014-03	.1232-03	.7101-01	.5667	538.3
12	1.0000	195.00	.13902-01	.1690-01	.1690-01	.9000	.2419-03	.2941-03	.1691	1.258	539.8
12	2.0000	196.00	.53367-02	.6484-02	.6484-02	.9000	.9288-04	.1128-03	.6504-01	.4844	538.4
12	2.0000	197.00	.10961-01	.1332-01	.1332-01	.9000	.1908-03	.2319-03	.1333	.9920	539.9
12	2.0000	198.00	.73997-02	.8991-02	.8991-02	.9000	.1288-03	.1565-03	.9012-01	.6710	538.9
12	2.0000	199.00	.75485-02	.9172-02	.9172-02	.9000	.1314-03	.1596-03	.9192-01	.6844	538.9
12	2.0000	200.00	.49249-02	.5984-02	.5984-02	.9000	.8571-04	.1041-03	.5997-01	.4619	539.0
12	3.0000	201.00	.52945-02	.6432-02	.6432-02	.9000	.9214-04	.1119-03	.6454-01	.4973	538.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 WINDOWS

(R4UW06)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
49	2 016	7.980	29.96	-.2452-02	435 6	1297.	94 40	.4535-01	2.021	3801.	.1297-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
49	3504-01	.2861-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TC	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
49	1 0000	191.00	.25540-01	.3084-01	.3084-01	.9000	.8950-03	.1081-02	.6751	4.856	542.3
49	1 0000	192.00	.37501-01	.4534-01	.4534-01	.9000	.1314-02	.1589-02	.9856	7.074	546.6
49	1 0000	193.00	.17169-01	.2072-01	.2072-01	.9000	.6017-03	.7261-03	.4551	3.386	540.2
49	1 0000	194 00	.81271-02	.9800-02	.9800-02	.9000	.2848-03	.3434-03	.2163	1.727	537 0
49	1 0000	195.00	.21160-01	.2555-01	.2555-01	.9000	.7415-03	.8953-03	.5598	4.162	541 8
49	2 0000	196.00	.60487-02	.7292-02	.7292-02	.9000	.2120-03	.2555-03	.1612	1 202	536.2
49	2 0000	197.00	.15461-01	.1866-01	.1866-01	.9000	.5418-03	.6538-03	.4100	3 051	539 9
49	2 0000	198 00	.87251-02	.1052-01	.1052-01	.9000	.3057-03	.3687-03	.2322	1.730	537 3
49	2 0000	199.00	.99766-02	.1203-01	.1203-01	.9000	.3496-03	.4217-03	.2651	1 974	538.4
49	2 0000	200.00	.55145-02	.6649-02	.6649-02	.9000	.1932-03	.2330-03	.1469	1.133	536.6
49	3 0000	201 00	.73269-02	.8834-02	.8834-02	.9000	.2568-03	.3096-03	.1951	1.504	536.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 WINDOWS

(R4UW06)

WINDOWS

PARAMETRIC DATA

MACH = 8.010    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0010    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
78	3.052	7.990	29 97	-.2449-02	670 0	1308	94.98	.6919-01	3 092	3817.	.1966-02	.7643-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
78	4340-01	2325-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
78	1.0000	191.00	26960-01	.3256-01	3256-01	.9000	.1170-02	.1413-02	.8893	6.379	547.7
78	1.0000	192.00	.43275-01	.5235-01	.5235-01	.9000	.1878-02	.2272-02	1.416	10.13	553.6
78	1.0000	193.00	.16263-01	.1962-01	.1962-01	.9000	.7059-03	.8517-03	.5390	4.003	544.1
78	1.0000	194.00	.74956-02	.9036-02	.9036-02	.9000	.3253-03	.3922-03	.2496	1.990	540.4
78	1.0000	195.00	.22960-01	.2773-01	.2773-01	.9000	.9965-03	.1204-02	.7576	5.616	547.5
78	2.0000	196.00	.52814-02	.6364-02	.6364-02	.9000	.2292-03	.2762-03	.1762	1.312	539.1
78	2.0000	197.00	.15834-01	.1911-01	.1911-01	.9000	.6872-03	.8294-03	.5243	3.892	544.7
78	2.0000	198.00	.76929-02	.9275-02	.9275-02	.9000	.3339-03	.4025-03	.2560	1.904	540.9
78	2.0000	199.00	.10426-01	.1257-01	.1257-01	.9000	.4525-03	.5456-03	.3467	2.578	541.5
78	2.0000	200.00	.54895-02	.6615-02	.6615-02	.9000	.2383-03	.2871-03	.1831	1.410	539.3
78	3.0000	201.00	.84118-02	.1014-01	.1014-01	.9000	.3651-03	.4400-03	.2804	2.159	539.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2770

OH84B 60-0 WINDOWS

(R4UW06)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
121	3.693	8.000	29.97	.4899-02	853.8	1351.	97.87	.8746-01	3.918	3880	.2412-02	.7876-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
121	.4913-01	.2106-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
121	1.0000	191.00	.31489-01	.3788-01	.3788-01	.9000	.1547-02	.1861-02	1.239	8.876	550.0
121	1.0000	192.00	.56507-01	.6819-01	.6819-01	.9000	.2776-02	.3351-02	2.188	15.58	562.5
121	1.0000	193.00	.19225-01	.2311-01	.2311-01	.9000	.9446-03	.1135-02	.7595	5.632	546.7
121	1.0000	194.00	.87829-02	.1054-01	.1054-01	.9000	.4315-03	.5179-03	.3495	2.785	540.8
121	1.0000	195.00	.28291-01	.3404-01	.3404-01	.9000	.1390-02	.1672-02	1.112	8.228	550.8
121	2.0000	196.00	.60383-02	.7244-02	.7244-02	.9000	.2967-03	.3559-03	.2407	1.792	539.4
121	2.0000	197.00	.18964-01	.2279-01	.2279-01	.9000	.9318-03	.1120-02	.7493	5.557	546.5
121	2.0000	198.00	.84274-02	.1012-01	.1012-01	.9000	.4141-03	.4970-03	.3351	2.491	541.5
121	2.0000	199.00	.11856-01	.1424-01	.1424-01	.9000	.5825-03	.6995-03	.4704	3.495	543.1
121	2.0000	200.00	.56134-02	.6734-02	.6734-02	.9000	.2758-03	.3309-03	.2239	1.724	538.9
121	3.0000	201.00	.96081-02	.1153-01	.1153-01	.9000	.4721-03	.5665-03	.3825	2.944	540.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2771

OH84B 60-0 WINDOWS

(R4UW07)

WINDOWS

PARAMETRIC DATA

MACH = 8.010    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
148	2.006	7.980	29.97	- 4892-02	434.9	1300	94.62	.4528-01	2.018	3805.	.1292-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
148	3503-01	2867-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
148	1.0000	191.00	26672-01	.3223-01	.3223-01	9000	.9343-03	.1129-02	.7044	5.058	545.7
148	1.0000	192.00	.39990-01	4839-01	4839-01	.9000	.1401-02	.1695-02	1.049	7.512	550.9
148	1.0000	193.00	.18256-01	.2205-01	2205-01	9000	.6395-03	.7724-03	4831	3.587	544.3
148	1.0000	194.00	83306-02	.1005-01	1005-01	.9000	2918-03	3521-03	.2214	1.765	540.8
148	1.0000	195.00	22732-01	.2747-01	2747-01	.9000	.7963-03	.9622-03	.6002	4.452	546.0
148	2.0000	196.00	62943-02	.7593-02	7593-02	9000	2205-03	.2660-03	1675	1.247	539.9
148	2.0000	197.00	16111-01	1946-01	1946-01	.9000	.5644-03	.6816-03	.4263	3.165	544.3
148	2.0000	198.00	84598-02	.1021-01	1021-01	.9000	2963-03	3576-03	.2247	1.671	541.5
148	2.0000	199.00	.10489-01	.1266-01	1266-01	9000	.3674-03	.4435-03	2783	2.069	542.2
148	2.0000	200.00	52738-02	6361-02	6361-02	9000	1847-03	2228-03	1404	1.081	539.5
148	3.0000	201.00	71905-02	8676-02	8676-02	9000	2519-03	3039-03	.1911	1.471	540.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2772

OH84B 60-0 WINDOWS

(R4UW08)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = 1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
52	1.990	7.980	29.94	1.035	434.8	1307.	95.13	.4526-01	2.018	3815.	.1284-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
52	3506-01	.2877-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
52	1.0000	191.00	.32310-01	.3899-01	.3899-01	.9000	.1133-02	.1367-02	.8643	6.213	543.6
52	1.0000	192.00	.52309-01	.6321-01	.6321-01	.9000	.1834-02	.2216-02	1.389	9.956	549.2
52	1.0000	193.00	.25851-01	.3117-01	.3117-01	.9000	.9062-03	.1093-02	.6938	5.159	541.1
52	1.0000	194.00	.12085-01	.1456-01	.1456-01	.9000	.4236-03	.5103-03	3259	2.602	537.4
52	1.0000	195.00	.30915-01	.3730-01	.3730-01	.9000	.1084-02	.1308-02	.9270	6.143	543.6
52	2.0000	196.00	.10251-01	.1234-01	.1234-01	.9000	.3594-03	.4328-03	2770	2.065	536.0
52	2.0000	197.00	.21048-01	.2537-01	.2537-01	.9000	.7379-03	.8895-03	5658	4.210	539.9
52	2.0000	198.00	.11068-01	.1333-01	.1333-01	.9000	.3880-03	.4673-03	2987	2.226	536.9
52	2.0000	199.00	.12944-01	.1559-01	.1559-01	.9000	.4538-03	.5467-03	3490	2.600	537.5
52	2.0000	200.00	.48300-02	.5814-02	.5814-02	.9000	.1693-03	.2038-03	1307	1.009	534.6
52	3.0000	201.00	.66446-02	.7999-02	.7999-02	.9000	.2329-03	.2804-03	1797	1.387	535.1



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2773

OH84B 60-0 WINDOWS

(R4UW10)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = 2.000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
56	1.998	7.980	29.94	2.039	435.1	1304	94.91	.4530-01	2.019	3811.	.1288-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
56	.3505-01	.2872-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
56	1.0000	191.00	.30258-01	.3651-01	.3651-01	.9000	.1061-02	.1280-02	.8072	5.805	542.7
56	1.0000	192.00	.57357-01	.6936-01	.6936-01	.9000	.2011-02	.2431-02	1.515	10.85	550.3
56	1.0000	193.00	.38079-01	.4597-01	.4597-01	.9000	.1335-02	.1611-02	1.014	7.527	544.3
56	1.0000	194.00	.19696-01	.2374-01	.2374-01	.9000	.6905-03	.8323-03	.5282	4.214	538.7
56	1.0000	195.00	.43118-01	.5208-01	.5208-01	.9000	.1511-02	.1826-02	1.145	8.496	546.0
56	2.0000	196.00	.14681-01	.1769-01	.1769-01	.9000	.5146-03	.6201-03	.3944	2.939	537.3
56	2.0000	197.00	.28159-01	.3396-01	.3396-01	.9000	.9871-03	.1191-02	.7528	5.599	541.0
56	2.0000	198.00	.14401-01	.1735-01	.1735-01	.9000	.5048-03	.6083-03	.3870	2.884	537.1
56	2.0000	199.00	.14696-01	.1771-01	.1771-01	.9000	.5151-03	.6208-03	.3947	2.941	537.4
56	2.0000	200.00	.56394-02	.6790-02	.6790-02	.9000	.1977-03	.2380-03	.1520	1.174	534.6
56	3.0000	201.00	.66720-02	.8033-02	.8033-02	.9000	.2339-03	.2816-03	.1799	1.389	534.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2774

OH84B 60-0 WINDOWS

(R4UW11)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDIT ONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
166	2.007	7.980	34.98	-4.060	435.1	1300.	94.62	.4530-01	2.019	3805.	.1292-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
166	3504-01	.2866-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. P /SEC	TW DEG. R
166	1.0000	191.00	.11359-01	.1371-01	.1371-01	.9000	.3980-03	.4805-03	.3012	2.166	543.0
166	1.0000	192.00	.77184-02	.9317-02	.9317-02	.9000	.2704-03	.3264-03	.2049	1.474	542.1
166	1.0000	193.00	.60882-02	.7347-02	.7347-02	.9000	.2133-03	.2574-03	.1618	1.203	541.1
166	1.0000	194.00	.38114-02	.4599-02	.4599-02	.9000	.1335-03	.1611-03	.1014	.8081	540.5
166	1.0000	195.00	.62003-02	.7482-02	.7482-02	.9000	.2172-03	.2621-03	.1648	1.226	541.0
166	2.0000	196.00	.40912-02	.4937-02	.4937-02	.9000	.1433-03	.1730-03	.1088	.8088	541.0
166	2.0000	197.00	.68172-02	.8228-02	.8228-02	.9000	.2389-03	.2883-03	.1811	1.347	541.5
166	2.0000	198.00	.68941-02	.8321-02	.8321-02	.9000	.2416-03	.2915-03	.1831	1.361	541.7
166	2.0000	199.00	.84376-02	.1018-01	.1018-01	.9000	.2956-03	.3568-03	.2240	1.665	542.0
166	2.0000	200.00	.71164-02	.8593-02	.8593-02	.9000	.2493-03	.3011-03	.1886	1.449	543.3
166	3.0000	201.00	.97080-02	.1172-01	.1172-01	.9000	.3401-03	.4106-03	.2576	1.981	542.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2775

OH84B 60-0 WINDOWS

(R4UW11)

WINDOWS

PARAMETRIC DATA

MACH = 8.010    ALPHA = 35.00    BETA = -4.000    ELEVEN = .0000  
 BDFLAP = 0500    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
109	3 001	7 990	34 99	-4 047	671.6	1325	96 21	.6936-01	3.099	3842.	.1946-02	.7742-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
109	4355-01	.2340-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
109	1.0000	191.00	.11680-01	.1406-01	.1406-01	.9000	.5087-03	.6125-03	.3976	2 858	543.1
109	1.0000	192.00	.75795-02	.9128-02	.9128-02	.9000	.3301-03	.3975-03	.2578	1.853	543.7
109	1.0000	193.00	.61271-02	.7375-02	.7375-02	.9000	.2668-03	.3212-03	.2089	1.553	541.9
109	1.0000	194.00	.40889-02	.4919-02	.4919-02	.9000	.1781-03	.2142-03	.1398	1.115	539.7
109	1.0000	195.00	.62999-02	.7584-02	.7584-02	.9000	.2744-03	.3303-03	.2146	1.595	542.4
109	2.0000	196.00	.39985-02	.4810-02	.4810-02	.9000	.1741-03	.2095-03	.1368	1.018	539.4
109	2.0000	197.00	.67431-02	.8118-02	.8118-02	.9000	.2937-03	.3536-03	.2296	1.707	542.7
109	2.0000	198.00	.72821-02	.8766-02	.8766-02	.9000	.3171-03	.3818-03	.2481	1.844	542.2
109	2.0000	199.00	.91094-02	.1097-01	.1097-01	.9000	.3967-03	.4776-03	.3103	2.306	542.5
109	2.0000	200.00	.71338-02	.8586-02	.8586-02	.9000	.3107-03	.3739-03	.2434	1.872	541.4
109	3.0000	201.00	.98896-02	.1190-01	.1190-01	.9000	.4307-03	.5184-03	.3374	2.595	541.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2776

OH84B 60-0 WINDOWS

(R4UW11)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -4.000 ELEVON = .0000  
 BDFLAP = .0000 SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
143	3.686	8.000	34.98	-4.043	854.1	1353.	98.02	.8749-01	3.919	3883.	.2409-02	.7888-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
143	4915-01	2108-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/T1	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
143	1.0000	191.00	.12200-01	.1466-01	.1466-01	.9000	.5997-03	.7204-03	4840	3.476	545.5
143	1.0000	192.00	.89910-02	.1080-01	.1080-01	.9000	.4420-03	.5309-03	3568	2.563	545.2
143	1.0000	193.00	.79193-02	.9510-02	.9510-02	.9000	.3893-03	.4674-03	.3149	2.338	543.8
143	1.0000	194.00	.48625-02	.5836-02	.5836-02	.9000	.2390-03	.2869-03	.1938	1.544	541.7
143	1.0000	195.00	.80232-02	.9634-02	.9634-02	.9000	.3944-03	.4736-03	3191	2.370	543.6
143	2.0000	196.00	.51048-02	.6127-02	.6127-02	.9000	.2509-03	.3012-03	2034	1.512	542.1
143	2.0000	197.00	.83501-02	.1003-01	.1003-01	.9000	.4104-03	.4929-03	3320	2.466	543.7
143	2.0000	198.00	.78867-02	.9471-02	.9471-02	.9000	.3877-03	.4655-03	3135	2.328	544.0
143	2.0000	199.00	.89415-02	.1074-01	.1074-01	.9000	.4395-03	.5278-03	3554	2.640	544.0
143	2.0000	200.00	.65441-02	.7859-02	.7859-02	.9000	.3217-03	.3863-03	.2601	1.998	544.1
143	3.0000	201.00	.96330-02	.1157-01	.1157-01	.9000	.4735-03	.5687-03	.3828	2.941	544.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2777

OH84B 60-0 WINDOWS

(R4UW12)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -2.000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
163	2.006	7.980	35.01	-1.994	434.8	1300	94.62	.4527-01	2.018	3805	.1291-02	.7614-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
163	3503-01	2867-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
163	1.0000	191.00	.22378-01	.2703-01	.2703-01	9000	.7838-03	.9467-03	5921	4.254	544.3
163	1.0000	192.00	.13893-01	.1677-01	.1677-01	9000	.4866-03	.5874-03	3687	2.652	542.0
163	1.0000	193.00	.11927-01	.1439-01	.1439-01	9000	.4178-03	.5041-03	.3169	2.357	541.2
163	1.0000	194.00	.65357-02	.7883-02	.7883-02	9000	.2289-03	.2761-03	.1741	1.389	539.1
163	1.0000	195.00	.91301-02	.1102-01	.1102-01	9000	.3198-03	.3859-03	.2427	1.805	540.7
163	2.0000	196.00	.52426-02	.6322-02	.6322-02	9000	.1836-03	.2214-03	.1398	1.041	538.5
163	2.0000	197.00	.76833-02	.9268-02	.9268-02	9000	.2691-03	.3246-03	.2045	1.522	539.7
163	2.0000	198.00	.69145-02	.8340-02	.8340-02	9000	.2422-03	.2921-03	.1841	1.370	539.5
163	2.0000	199.00	.77332-02	.9329-02	.9329-02	9000	.2709-03	.3267-03	.2058	1.532	539.8
163	2.0000	200.00	.46073-02	.5558-02	.5558-02	9000	.1614-03	.1947-03	.1226	.9441	539.7
163	3.0000	201.00	.51147-02	.6168-02	.6168-02	9000	.1791-03	.2160-03	.1363	1.050	538.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2778

OH84B 60-0 WINDOWS

(R4UW12)

WINDOWS

PARAMETRIC DATA

MACH = 8.0 0    ALPHA = 35.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
106	3 013	7.990	35 02	-1.984	670.6	1320	95 85	.6925-01	3.095	3835.	.1950-02	.7713-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
106	4349-01	2337-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T.C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
106	1 0000	191 00	.20666-01	.2490-01	.2490-01	.9000	.8988-03	.1083-02	.6982	5.020	542.9
106	1.0000	192 00	.14243-01	.1715-01	.1715-01	.9000	.6194-03	.7461-03	.4816	3.464	542.2
106	1.0000	193 00	.11212-01	.1349-01	.1349-01	.9000	.4876-03	.5869-03	.3903	2.831	539.6
106	1 0000	194.00	.74133-02	.8915-02	.8915-02	.9000	.3224-03	.3877-03	.2525	2 017	536.4
106	1.0000	195.00	.99161-02	.1194-01	.1194-01	.9000	.4313-03	.5191-03	.3362	2 502	540.0
106	2 0000	196 00	.54152-02	.6511-02	.6511-02	.9000	.2355-03	.2832-03	.1846	1 377	535.7
106	2.0000	197 00	.83290-02	.1002-01	.1002-01	.9000	.3622-03	.4359-03	.2829	2 106	538.8
106	2 0000	198 00	.88776-02	.1068-01	.1068-01	.9000	.3861-03	.4645-03	.3017	2 247	538.2
106	2.0000	199 00	.81024-02	.9749-02	.9749-02	.9000	.3524-03	.4240-03	.2753	2 050	538.5
106	2 0000	200 00	.49964-02	.6008-02	.6008-02	.9000	.2173-03	.2613-03	.1703	1 313	536.2
106	3 0000	201 00	.50232-02	.6042-02	.6042-02	.9000	.2185-03	.2628-03	.1710	1.319	536.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2779

OH84B 60-0 WINDOWS

(R4UW12)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -2.000 ELEVON = .0000  
 BDFLAP = .0000 SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
140	3.683	8.000	35 02	-1 979	853 5	1353	98 02	8743-01	3 917	3883.	.2407-02	.7888-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
140	.4914-01	2109-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/T)	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
140	1 0000	191.00	22535-01	2711-01	.2711-01	9000	.1107-02	.1332-02	.8878	6.358	550.9
140	1.0000	192.00	17301-01	2081-01	.2081-01	.9000	8501-03	1022-02	6822	4 888	550.2
140	1 0000	193.00	12361-01	1486-01	.1486-01	.9000	6074-03	.7300-03	4891	3.626	547.3
140	1.0000	194.00	66946-02	8039-02	8039-02	.9000	.3290-03	3950-03	2661	2 117	543.9
140	1 0000	195.00	.10660-01	1281-01	.1281-01	.9000	.5238-03	6296-03	.4216	3 125	547.8
140	2 0000	196.00	64127-02	7699-02	.7699-02	9000	3151-03	3783-03	.2551	1.895	543 2
140	2.0000	197.00	93942-02	1129-01	1129-01	9000	4616-03	5546-03	.3723	2 762	546 2
140	2 0000	198.00	97316-02	1169-01	.1169-01	9000	.4782-03	.5745-03	3859	2 863	545 6
140	2.0000	199.00	85678-02	1029-01	.1029-01	9000	4210-03	.5057-03	3399	2.523	545 2
140	2 0000	200.00	54695-02	6568-02	6568-02	.9000	2688-03	3227-03	2174	1.670	543 7
140	3 0000	201.00	.55621-02	.6679-02	.6679-02	9000	.2733-03	3282-03	.2211	1 699	543 6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2780

OH84B 60-0 WINDOWS

(R4UW13)

WINDOWS

PARAMETRIC DATA

MACH = 8.070    ALPHA = 35.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .0110    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
160	2.003	7.980	35 01	- .9963	435 2	1302.	94.76	.4531-01	2.020	3808.	.1290-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
160	.3505-01	2869-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
160	1 0000	191.00	.30622-01	.3698-01	.3698-01	.9000	.1073-02	.1296-02	8124	5.837	544.7
160	1 0000	192.00	.23194-01	.2800-01	.2800-01	.9000	.8130-03	.9813-03	.6170	4.437	542.7
160	1 0000	193.00	.14162-01	.1708-01	.1708-01	.9000	.4964-03	.5987-03	3780	2 813	540.2
160	1 0000	194.00	.90826-02	.1095-01	.1095-01	.9000	.3183-03	.3838-03	2429	1 938	538.5
160	1 0000	195 00	.11635-01	.1403-01	.1403-01	.9000	.4078-03	.4918-03	3108	2 313	539 5
160	2 0000	196.00	.72099-02	.8691-02	.8691-02	.9000	.2527-03	.3046-03	.1930	1 438	537.9
160	2 0000	197 00	.95043-02	.1146-01	.1146-01	.9000	.3331-03	.4017-03	2541	1 892	538 8
160	2 0000	198 00	.71382-02	.8604-02	.8604-02	.9000	.2502-03	.3016-03	1911	1 424	537.8
160	2 0000	199 00	.71612-02	.8633-02	.8633-02	.9000	.2510-03	.3026-03	1917	1 428	537 9
160	2 0000	200 00	.46916-02	.5656-02	.5656-02	.9000	.1644-03	.1982-03	.1255	9674	538 2
160	3 0000	201.00	.52153-02	.6286-02	.6286-02	.9000	.1828-03	.2203-03	1397	1.077	537 3



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2781

OH84B 60-0 WINDOWS

(R4UW13)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
103	3 014	7.990	35 03	-1.9919	669 2	1318.	95 71	.6911-01	3.088	3832.	.1949-02	.7701-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
103	.4343-01	.2337-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
103	1 0000	191.00	.30077-01	.3629-01	.3629-01	.9000	.1306-02	.1576-02	1.006	7 212	548.0
103	1 0000	192.00	.26159-01	.3156-01	.3156-01	.9000	.1136-02	.1371-02	.8753	6 280	547.3
103	1 0000	193.00	.13521-01	.1629-01	.1629-01	.9000	.5873-03	.7075-03	.4553	3 384	542.4
103	1.0000	194.00	.92076-02	.1109-01	.1109-01	.9000	.3999-03	.4816-03	.3108	2.478	540.4
103	1.0000	195.00	.12749-01	.1536-01	.1536-01	.9000	.5537-03	.6673-03	.4288	3.186	543.2
103	2 0000	196.00	.75673-02	.9109-02	.9109-02	.9000	.3287-03	.3956-03	.2559	1 905	539.0
103	2.0000	197.00	.10904-01	.1313-01	.1313-01	.9000	.4736-03	.5704-03	.3675	2 733	541.6
103	2 0000	198.00	.91614-02	.1103-01	.1103-01	.9000	.3979-03	.4791-03	.3095	2.303	540.0
103	2 0000	199.00	.80358-02	.9677-02	.9677-02	.9000	.3490-03	.4203-03	.2712	2 017	540.7
103	2 0000	200.00	.53389-02	.6425-02	.6425-02	.9000	.2319-03	.2791-03	.1808	1 393	538.1
103	3 0000	201.00	.60725-02	.7310-02	.7310-02	.9000	.2638-03	.3175-03	.2053	1.581	539.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2782

OH84B 60-0 WINDOWS

(R4UW13)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -1.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG.	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
137	3.676	8.000	35.07	-.9690	851.9	1353	98.02	.8726-01	3.909	3883.	.2403-02	.7888-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175
137	.4909-01	.2111-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
137	1.0000	191.00	.30708-01	.3695-01	.3695-01	.9000	.1508-02	.1814-02	1.207	8.638	552.1
137	1.0000	192.00	.29104-01	.3502-01	.3502-01	.9000	.1429-02	.1719-02	1.144	8.190	551.8
137	1.0000	193.00	.14502-01	.1742-01	.1742-01	.9000	.7119-03	.8553-03	.5745	4.263	545.7
137	1.0000	194.00	.94108-02	.1130-01	.1130-01	.9000	.4620-03	.5548-03	.3737	2.974	543.8
137	1.0000	195.00	.14296-01	.1718-01	.1718-01	.9000	.7018-03	.8434-03	.5654	4.193	546.9
137	2.0000	196.00	.79124-02	.9496-02	.9496-02	.9000	.3884-03	.4662-03	.3150	2.342	541.7
137	2.0000	197.00	.11507-01	.1382-01	.1382-01	.9000	.5649-03	.6786-03	.4561	3.385	545.2
137	2.0000	198.00	.97921-02	.1176-01	.1176-01	.9000	.4807-03	.5772-03	.3889	2.889	543.6
137	2.0000	199.00	.88090-02	.1058-01	.1058-01	.9000	.4324-03	.5192-03	.3500	2.601	543.2
137	2.0000	200.00	.60774-02	.7294-02	.7294-02	.9000	.2984-03	.3581-03	.2419	1.861	541.8
137	3.0000	201.00	.62722-02	.7528-02	.7528-02	.9000	.3079-03	.3696-03	.2496	1.920	542.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPER ONIC TUNNEL

PAGE 2783

OH84B 60-0 WINDOWS

(R4UW14)

WINDOWS

PARAMETRIC DATA

MACH = 2.00    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
15	5155	7.900	34.95	2148-02	101.7	1243	92.17	1130-01	4937	3718.	.3309-03	.7417-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
15	1719-01	5638-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/T)	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
15	1.0000	191.00	20301-01	2466-01	2466-01	9000	.3490-03	.4238-03	.2456	1.769	539.0
15	1.0000	192.00	.22902-01	2781-01	.2781-01	9000	.3937-03	.4781-03	2772	1.997	538.7
15	1.0000	193.00	.13470-01	.1635-01	.1635-01	.9000	.2316-03	.2811-03	.1633	1.217	537.5
15	1.0000	194.00	.56035-02	.6800-02	.6800-02	9000	.9632-04	.1169-03	.6804-01	.5435	536.3
15	1.0000	195.00	.12639-01	.1534-01	.1534-01	9000	.2173-03	.2637-03	.1532	1.142	537.3
15	2.0000	196.00	.52621-02	.6385-02	.6385-02	.9000	.9046-04	.1098-03	.6392-01	.4766	536.0
15	2.0000	197.00	.10054-01	.1220-01	.1220-01	9000	.1728-03	.2098-03	.1219	.9085	537.2
15	2.0000	198.00	.65245-02	.7917-02	.7917-02	.9000	.1122-03	.1361-03	.7923-01	.5907	536.3
15	2.0000	199.00	.67616-02	.8205-02	.8205-02	9000	.1162-03	.1410-03	.8209-01	.6119	536.4
15	2.0000	200.00	.43861-02	.5323-02	.5323-02	9000	.7540-04	.9149-04	.5325-01	.4107	536.4
15	3.0000	201.00	.49232-02	.5973-02	.5973-02	.9000	.8463-04	.1027-03	.5981-01	.4614	535.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2784

OH84B 60-0 WINDOWS

(R4UW14)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000 ELEVON = 0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
62	1.995	7.980	34.99	-.1400-02	434.9	1305.	94.98	.4527-01	2.018	3813.	.1287-02	.7643-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
62	.3505-01	.2874-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
62	1.0000	191.00	.37445-01	.4523-01	.4523-01	.9000	.1312-02	.1585-02	.9950	7.141	546.6
62	1.0000	192.00	.32978-01	.3981-01	.3981-01	.9000	.1156-02	.1395-02	8788	6.314	544.4
62	1.0000	193.00	.16560-01	.1997-01	.1997-01	.9000	.5805-03	.6998-03	.4440	3.304	539.8
62	1.0000	194.00	.12199-01	.1470-01	.1470-01	.9000	.4276-03	.5154-03	3275	2.613	538.8
62	1.0000	195.00	.15772-01	.1902-01	.1902-01	.9000	.5528-03	.6665-03	.4229	3.148	539.6
62	2.0000	196.00	.95601-02	.1152-01	.1152-01	.9000	.3351-03	.4038-03	2570	1.914	537.8
62	2.0000	197.00	.10725-01	.1292-01	.1292-01	.9000	.3759-03	.4530-03	2882	2.147	537.9
62	2.0000	198.00	.83783-02	.1009-01	.1009-01	.9000	.2937-03	.3538-03	.2255	1.681	536.9
62	2.0000	199.00	.83130-02	.1002-01	.1002-01	.9000	.2914-03	.3511-03	2236	1.666	537.2
62	2.0000	200.00	.50617-02	.6097-02	.6097-02	.9000	.1774-03	.2137-03	1363	1.051	536.5
62	3.0000	201.00	.58979-02	.7105-02	.7105-02	.9000	.2067-03	.2490-03	1588	1.224	536.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2785

OH84B 60-0 WINDOWS

(R4UW14)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = 0000  
 BDFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T(O) DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
81	3.030	7.990	35.02	-6903-03	670.5	1315	95.49	6924-01	3.094	3827	.1957-02	.7684-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
81	4346-01	.2332-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
81	1.0000	191.00	.38077-01	.4597-01	.4597-01	.9000	.1655-02	.1998-02	1.267	9.084	548.9
81	1.0000	192.00	.38710-01	.4673-01	.4673-01	.9000	.1682-02	.2031-02	1.298	9.238	548.8
81	1.0000	193.00	.16027-01	.1931-01	.1931-01	.9000	.6965-03	.8392-03	.5386	4.005	541.4
81	1.0000	194.00	.12613-01	.1519-01	.1519-01	.9000	.5482-03	.6604-03	.4241	3.380	540.9
81	1.0000	195.00	.17824-01	.2148-01	.2148-01	.9000	.7746-03	.9337-03	.5979	4.443	542.8
81	2.0000	196.00	.10113-01	.1218-01	.1218-01	.9000	.4395-03	.5292-03	.3409	2.538	538.9
81	2.0000	197.00	.12650-01	.1524-01	.1524-01	.9000	.5497-03	.6622-03	.4255	3.165	540.7
81	2.0000	198.00	.94163-02	.1134-01	.1134-01	.9000	.4092-03	.4928-03	.3174	2.363	539.1
81	2.0000	199.00	.91184-02	.1098-01	.1098-01	.9000	.3963-03	.4771-03	.3074	2.289	538.8
81	2.0000	200.00	.54749-02	.6590-02	.6590-02	.9000	.2379-03	.2864-03	.1849	1.425	537.5
81	3.0000	201.00	.63232-02	.7612-02	.7612-02	.9000	.2748-03	.3308-03	.2134	1.644	538.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2786

OH84B 60-0 WINDOWS

(R4UW14)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 0.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TC DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
134	3.680	8.000	35.02	-6917-03	852.8	1353.	98.02	.8735-01	3.913	3883.	.2405-02	.7888-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
134	.4912-01	2109-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
134	1.0000	191.00	.43069-01	.5189-01	5189-01	.9000	2115-02	.2549-02	1.684	12.02	556.7
134	1.0000	192.00	.47936-01	.5777-01	5777-01	.9000	2355-02	.2838-02	1.871	13.35	558.0
134	1.0000	193.00	.19333-01	.2323-01	2323-01	.9000	.9496-03	.1141-02	.7655	5.678	546.5
134	1.0000	194.00	.13618-01	.1636-01	1636-01	.9000	.6689-03	.8035-03	5401	4.295	545.2
134	1.0000	195.00	.23034-01	.2770-01	2770-01	.9000	.1131-02	.1361-02	.9086	6.729	549.6
134	2.0000	196.00	.11846-01	.1422-01	1422-01	.9000	.5818-03	.6986-03	4709	3.499	543.3
134	2.0000	197.00	.15783-01	.1896-01	1896-01	.9000	.7752-03	.9313-03	.6258	4.644	545.4
134	2.0000	198.00	.11841-01	.1422-01	1422-01	.9000	.5816-03	.6983-03	4706	3.496	543.5
134	2.0000	199.00	.10779-01	.1294-01	1294-01	.9000	.5294-03	.6357-03	4285	3.183	543.3
134	2.0000	200.00	.56120-02	.6735-02	6735-02	.9000	.2756-03	.3308-03	2236	1.720	541.4
134	3.0000	201.00	.67701-02	.8124-02	8124-02	.9000	.3325-03	.3990-03	2699	2.076	541.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2787

OH84B 60-0 WINDOWS

(R4UW15)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
 BDFLAP = 0.000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TC DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
203	.4973	7.900	39.90	-10.06	99.51	1255	93.06	1106-01	.4831	3736	.3207-03	.7489-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
203	1703-01	5732-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TJ	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
203	1.0000	191.00	.26695-02	.3230-02	.3230-02	.9000	.4547-04	.5501-04	.3290-01	.2380	531.2
203	1.0000	192.00	.80167-02	.9700-02	.9700-02	.9000	.1366-03	.1652-03	.9874-01	.7141	531.6
203	1.0000	193.00	.70019-02	.8472-02	.8472-02	.9000	.1193-03	.1443-03	.8626-01	.6447	531.5
203	1.0000	194.00	.47796-02	.5782-02	.5782-02	.9000	.8142-04	.9850-04	.5890-01	.4717	531.2
203	1.0000	195.00	.10958-01	.1326-01	.1326-01	.9000	.1567-03	.2258-03	.1350	1.009	531.3
203	2.0000	196.00	.72870-02	.8817-02	.8817-02	.9000	.1241-03	.1502-03	.8974-01	.6706	531.7
203	2.0000	197.00	.13420-01	.1624-01	.1624-01	.9000	.2286-03	.2766-03	.1653	1.235	531.8
203	2.0000	198.00	.17296-01	.2093-01	.2093-01	.9000	.2946-03	.3566-03	.2128	1.589	532.5
203	2.0000	199.00	.16714-01	.2023-01	.2023-01	.9000	.2847-03	.3446-03	.2056	1.535	532.6
203	2.0000	200.00	.13348-01	.1616-01	.1616-01	.9000	.2274-03	.2752-03	.1641	1.268	532.8
203	3.0000	201.00	.13162-01	.1593-01	.1593-01	.9000	.2242-03	.2713-03	.1620	1.253	531.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2788

OH84B 60-0 WINDOWS

(R4UW15)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
 BDFLAP = .1000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
190	1.004	7.940	39.95	-10.04	205.0	1261.	92.64	.2205-01	9731	3746.	.6425-03	.7454-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
190	.2419-01	.4052-01

\*\*\*TEST D. TA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/ O	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
190	1.0000	191.00	.39861-02	.4698-02	.4698-02	.9000	.9402-04	.1137-03	.6859-01	.4962	531.1
190	1.0000	192.00	.90022-02	.1088-01	.1088-01	.9000	.2178-03	.2633-03	.1588	1.149	531.5
190	1.0000	193.00	.75453-02	.9123-02	.9123-02	.9000	.1826-03	.2207-03	.1331	.9946	531.6
190	1.0000	194.00	.49155-02	.5942-02	.5942-02	.9000	.1189-03	.1438-03	.8680-01	.6953	530.8
190	1.0000	195.00	.12868-01	.1556-01	.1556-01	.9000	.3113-03	.3765-03	.2268	1.695	532.1
190	2.0000	196.00	.69447-02	.8397-02	.8397-02	.9000	.1680-03	.2032-03	.1225	.9155	531.6
190	2.0000	197.00	.16348-01	.1977-01	.1977-01	.9000	.3955-03	.4784-03	.2881	2.152	532.4
190	2.0000	198.00	.18546-01	.2243-01	.2243-01	.9000	.4487-03	.5428-03	.3264	2.438	533.2
190	2.0000	199.00	.19061-01	.2306-01	.2306-01	.9000	.4612-03	.5579-03	.3354	2.504	533.5
190	2.0000	200.00	.13861-01	.1677-01	.1677-01	.9000	.3354-03	.4057-03	.2439	1.883	533.5
190	3.0000	201.00	.12872-01	.1557-01	.1557-01	.9000	.3114-03	.3767-03	.2268	1.753	532.5



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2789

OH84B 60-0 WINDOWS

(R4UW15)

## WINDOWS

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .9000

## \*\*\*TEST CONDITION..\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
172	2.004	7.980	39 98	-10 09	434.9	1301.	94.69	.4528-01	2.018	3807.	.1291-02	.7620-07

RUN NUMBER	4REF BTU/ R FT2SEC	STN NO REF (R) =.0175
172	.3503-01	2868-01

## \*\*\*TEST DATA\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAH/TO	I(TO) BTU/R FT2SEC	H(TAH) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
172	1.0000	191.00	.62642-02	.7565-02	.7565-02	9000	.195-03	.2650-03	.1660	1.193	544.3
172	1.0000	192.00	.11862-01	.1433-01	.1433-01	.9000	.156-03	.5019-03	.3142	2.258	544.6
172	1.0000	193.00	.89190-02	.1077-01	.1077-01	9000	.3125-03	.3774-03	.2363	1.755	544.4
172	1.0000	194.00	.50747-02	.6127-02	.6127-02	.9000	.1778-03	.2147-03	.1346	1.071	543.6
172	1.0000	195.00	.15856-01	.1916-01	.1916-01	.9000	.555-03	.6711-03	.4194	3.112	545.7
172	2.0000	196.00	.72799-02	.9793-02	.8793-02	9000	.2550-03	.3081-03	.1928	1.431	544.8
172	2.0000	197.00	.19137-01	.2312-01	.2312-01	9000	.5704-03	.8102-03	.5056	3.750	546.5
172	2.0000	198.00	.22057-01	.2666-01	.2666-01	.9000	.727-03	.9341-03	.5817	4.311	547.9
172	2.0000	199.00	.21983-01	.2657-01	.2657-01	9000	.7702-03	.9310-03	.5798	4.297	547.9
172	2.0000	200.00	.15721-01	.1901-01	.1901-01	9000	.508-03	.6660-03	.4141	3.173	548.8
172	3.0000	201.00	.12290-01	.1485-01	.1485-01	.9000	.4306-03	.5202-03	.3250	2.495	545.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2790

OH84B 60-0 WINDOWS

(R4UW15)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -10.00 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
100	3.008	7.990	40.00	-10.10	673.1	1325.	55.21	.6951-01	3.106	3842.	.1950-02	.7742-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) #.0175
100	4360-01	.2338-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
100	1.0000	191.00	.75729-02	.9122-02	.9122-02	.9000	.3302-03	.3977-03	.2575	1.850	544.7
100	1.0000	192.00	.14390-01	.1734-01	.1734-01	.9000	.6274-03	.7561-03	.4886	3.508	546.0
100	1.0000	193.00	.97104-02	.1170-01	.1170-01	.9000	.4234-03	.5100-03	.3304	2.453	544.4
100	1.0000	194.00	.52382-02	.6308-02	.6308-02	.9000	.2284-03	.2750-03	.1784	1.420	543.4
100	1.0000	195.00	.16508-01	.1989-01	.1989-01	.9000	.7197-03	.8674-03	.5601	4.155	546.4
100	2.0000	196.00	.76089-02	.9166-02	.9166-02	.9000	.3318-03	.3996-03	.2587	1.921	544.8
100	2.0000	197.00	.19833-01	.2391-01	.2391-01	.9000	.3647-03	.1042-02	.6723	4.984	547.3
100	2.0000	198.00	.23860-01	.2878-01	.2878-01	.9000	.1040-02	.1255-02	.8063	5.971	549.6
100	2.0000	199.00	.23228-01	.2801-01	.2801-01	.9000	.1013-02	.1221-02	.7851	5.815	549.4
100	2.0000	200.00	.16641-01	.2007-01	.2007-01	.9000	.7256-03	.8751-03	.5627	4.311	549.2
100	3.0000	201.00	.12478-01	.1504-01	.1504-01	.9000	.5440-03	.6555-03	.4237	3.252	545.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2791

OH84B 60-0 WINDOWS

(R4UW17)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -4.000 ELEVON = .0000  
BDFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
200	.5083	7.900	39.97	-3.996	100.7	1247	52.47	.1119-01	.4891	3724.	.3268-03	.7441-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REL(R) * 0175
200	1712-01	.5675-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
200	1.0000	191 00	.11305-01	.1368-01	.1368-01	.9000	.1935-03	.2342-03	.1388	1.005	529.6
200	1.0000	192 00	.90823-02	.1099-01	.1099-01	9000	1555-03	.1882-03	.1116	.8077	529.2
200	1.0000	193 00	.63429-02	.7675-02	.7675-02	9000	1086-03	.1314-03	.7800-01	.5839	528.3
200	1.0000	194.00	.31960-02	.3866-02	.3866-02	.9000	5471-04	.6618-04	.3936-01	.3158	527.3
200	1.0000	195.00	.61694-02	.7464-02	.7464-02	.9000	1056-03	.1278-03	.7591-01	.5683	528.0
200	2.0000	196 00	.37602-02	.4548-02	.4548-02	9000	6437-04	.7787-04	.4631-01	.3468	527.3
200	2.0000	197 00	.53694-02	.6496-02	.6496-02	.9000	9192-04	.1112-03	.6607-01	.4947	527.9
200	2.0000	198 00	.64077-02	.7752-02	.7752-02	9000	1097-03	.1327-03	.7886-01	.5905	527.7
200	2.0000	199 00	.68421-02	.8278-02	.8278-02	9000	1171-03	.1417-03	.8419-01	.6303	527.9
200	2.0000	200 00	.68371-02	.8272-02	.8272-02	9000	1170-03	.1416-03	.8412-01	.6515	527.9
200	3.0000	201 00	.78078 02	.9446-02	.9446-02	.9000	1337-03	.1617-03	.9606-01	.7440	528.0

DATE 23 FEB 80

CH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2792

CH84B 60-0 WINDOWS

(R4UW17)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
187	1.008	7.940	39.9E	-3.991	205 0	1257.	92.34	.2205-01	.9731	3740.	.6445-03	.7431-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
187	2418-01	.4044-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
187	1.0000	191.00	.17148-01	.2075-01	.2075-01	.9000	.4147-03	.5019-03	2999	2.167	533.3
187	1.0000	192.00	.10595-01	.1282-01	.1282-01	.9000	.2562-03	.3099-03	.1857	1.342	532.0
187	1.0000	193.00	.11096-01	.1342-01	.1342-01	.9000	.2683-03	.3246-03	.1945	1.453	531.9
187	1.0000	194.00	.56015-02	.6773-02	.6773-02	.9000	.1355-03	.1638-03	.9840-01	.7884	530.2
187	1.0000	195.00	.89403-02	.1081-01	.1081-01	.9000	.2162-03	.2615-03	.1569	1.173	530.9
187	2.0000	196.00	.46889-02	.5669-02	.5669-02	.9000	.1134-03	.1371-03	.8240-01	.6163	529.9
187	2.0000	197.00	.75938-02	.9183-02	.9183-02	.9000	.1836-03	.2221-03	.1333	.9969	530.6
187	2.0000	198.00	.63207-02	.7643-02	.7643-02	.9000	.1528-03	.1848-03	.1110	.8299	530.5
187	2.0000	199.00	.63217-02	.7645-02	.7645-02	.9000	.1529-03	.1849-03	.1110	.8298	530.7
187	2.0000	200.00	.55984-02	.6770-02	.6770-02	.9000	.1354-03	.1637-03	.9832-01	.7605	530.4
187	3.0000	201.00	.67664-02	.8208-02	.8208-02	.9000	.1641-03	.1985-03	.1191	.9211	530.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2793

OH84B 60-0 WINDOWS

(R4UW17)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITION\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
178	2 003	7.980	39.97	-4 003	435 3	1302.	54.76	.4532-01	2.020	3808.	.1291-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
178	3505-01	.2868-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
178	1 0000	191 00	.20661-01	.2492-01	.2492-01	.9000	.7242-03	.8736-03	.5515	3.971	540.2
178	1 0000	192 00	.11327-01	.1365-01	.1365-01	9000	.3971-03	.4786-03	.3034	2.188	537.5
178	1 0000	193 00	.14486-01	.1746-01	.1746-01	.9000	.5078-03	.6122-03	.3878	2.888	538.1
178	1 0000	194 00	.85920-02	.1035-01	.1035-01	.9000	.3012-03	.3629-03	.2307	1.843	535.8
178	1 0000	195 00	.99249-02	.1196-01	.1196-01	9000	.3479-03	.4192-03	.2662	1.984	536.6
178	2 0000	196 00	.66829-02	.8049-02	.8049-02	9000	.2343-03	.2822-03	.1797	1.341	534.7
178	2 0000	197 00	.96980-02	.1169-01	.1169-01	9000	.3400-03	.4096-03	.2602	1.940	536.3
178	2 0000	198 00	.98928-02	.1192-01	.1192-01	.9000	.3468-03	.4178-03	.2654	1.979	536.3
178	2 0000	199 00	.89288-02	.1076-01	.1076-01	9000	.3130-03	.3771-03	.2396	1.786	536.2
178	2 0000	200 00	.51733-02	.6230-02	.6230-02	9000	.1813-03	.2184-03	.1391	1.074	534.4
178	3 0000	201 00	.58538-02	.7051-02	.7051-02	9000	.2052-03	.2472-03	.1573	1.214	535.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2794

OH84B 60-0 WINDOWS

(R4UW17)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -4.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
96	2.988	7.990	40 00	-4.027	670.3	1327.	96.36	.6922-01	3.093	3845.	.1939-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
96	.4352-01	.2345-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
96	1.0000	191.00	.22695-01	.2735-01	2735-01	.9000	.9877-03	1190-02	.7696	5 521	547.5
96	1.0000	192.00	.13767-01	.1658-01	.1658-01	.9000	.5992-03	.7214-03	.4691	3 371	543.8
96	1.0000	193.00	.16791-01	.2022-01	.2022-01	.9000	.7308-03	.8802-03	.5711	4.239	545.2
96	1.0000	194.00	.89826-02	.1081-01	.1081-01	.9000	.3909-03	.4705-03	.3067	2.443	542.0
96	1.0000	195.00	.11493-01	.1383-01	.1383-01	.9000	.5002-03	.6020-03	.3923	2.916	542.3
96	2.0000	196.00	.70977-02	.8541-02	.8541-02	.9000	.3089-03	.3717-03	.2425	1 803	541.6
96	2.0000	197.00	.11768-01	.1416-01	.1416-01	.9000	.5122-03	.6164-03	.4019	2.988	542.0
96	2.0000	198.00	.12011-01	.1446-01	.1446-01	.9000	.5227-03	.6293-03	.4096	3 044	543.0
96	2.0000	199.00	.95138-02	.1145-01	.1145-01	.9000	.4141-03	.4982-03	.3251	2 418	541.4
96	2.0000	200.00	.61759-02	.7433-02	.7433-02	.9000	.2688-03	.3235-03	.2109	1 622	542.0
96	3.0000	201.00	.61899-02	.7447-02	.7447-02	.9000	.2694-03	.3241-03	.2118	1 630	540.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSON C TUNNEL

PAGE 2795

OH84B 60-0 WINDOWS

(R4UH18)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
197	.4998	7.900	39.96	-1.991	100.2	1257	93 21	.1114-01	.4867	3739.	.3226-03	.7501-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
197	.1710-01	5716-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
197	1.0000	191.00	.19090-01	.2310-01	.2310-01	9000	.3265-03	.3950-03	.0764	1.709	532.5
197	1.0000	192.00	.13205-01	.1597-01	.1597-01	.9000	.2258-03	.2732-03	.1638	1.184	531.5
197	1.0000	193.00	.10847-01	.1312-01	.1312-01	.9000	.1855-03	.2244-03	.1345	1.006	531.4
197	1.0000	194.00	.45982-02	.5559-02	.5559-02	.9000	.7864-04	.9507-04	.5717-01	.4582	529.6
197	1.0000	195.00	.88074-02	.1065-01	.1065-01	.9000	.1506-03	.1822-03	.1093	.8175	530.7
197	2.0000	196.00	.46310-02	.5598-02	.5598-02	.9000	.7920-04	.9574-04	.5760-01	.4310	529.3
197	2.0000	197.00	.79698-02	.9637-02	.9637-02	.9000	.1363-03	.1648-03	.9899-01	.7402	530.4
197	2.0000	198.00	.58139-02	.7029-02	.7029-02	.9000	.9943-04	.1202-03	.7229-01	.5408	529.6
197	2.0000	199.00	.58547-02	.7078-02	.7078-02	.9000	.1001-03	.1211-03	.7279-01	.5445	529.7
197	2.0000	200.00	.48384-02	.5849-02	.5849-02	.9000	.8275-04	.1000-03	.6017-01	.4657	529.5
197	3.0000	201.00	.57662-02	.6971-02	.6971-02	.9000	.9861-04	.1192-03	.7170-01	.5548	529.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2796

OH84B 60-0 WINDOWS

(R4UW18)

WINDOWS

PARAMETRIC DATA

MACH = 6.000 ALPHA = 40.00 BETA = -2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
184	.9995	7.940	39.97	-2.001	204.9	1264.	92.86	.2204-01	.9726	3751.	.6406-03	.7472-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
184	2420-01	.4059-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
184	1.0000	191.00	.28222-01	.3415-01	.3415-01	.9000	.6829-03	.8265-03	.4969	3.585	536.1
184	1.0000	192.00	.14110-01	.1706-01	.1706-01	.9000	.3414-03	.4129-03	.2494	1.802	533.3
184	1.0000	193.00	.15418-01	.1864-01	.1864-01	.9000	.3731-03	.4511-03	.2726	2.036	533.0
184	1.0000	194.00	.91879-02	.1110-01	.1110-01	.9000	.2223-03	.2687-03	.1628	1.304	531.4
184	1.0000	195.00	.10318-01	.1247-01	.1247-01	.9000	.2497-03	.3018-03	.1827	1.365	532.0
184	2.0000	196.00	.73270-02	.8855-02	.8855-02	.9000	.1773-03	.2143-03	.1299	.9707	531.2
184	2.0000	197.00	.96693-02	.1169-01	.1169-01	.9000	.2340-03	.2828-03	.1713	1.280	531.7
184	2.0000	198.00	.79934-02	.9659-02	.9659-02	.9000	.1934-03	.2337-03	.1417	1.059	531.0
184	2.0000	199.00	.74647-02	.9023-02	.9023-02	.9000	.1806-03	.2183-03	.1322	.9878	531.8
184	2.0000	200.00	.43907-02	.5305-02	.5305-02	.9000	.1062-03	.1284-03	.7790-01	.6025	530.5
184	3.0000	201.00	.47687-02	.5762-02	.5762-02	.9000	.1154-03	.1394-03	.8456-01	.6540	530.9



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2797

OH84B 60-0 WINDOWS

(R4UW18)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
175	1.988	7.980	39.99	-2.005	434.9	1308.	95.20	4528-01	2.018	3817.	.1284-02	.7661-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
175	3507-01	2878-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
175	1 0000	191 00	.35697-01	.4307-01	.4307-01	9000	.1252-02	.1510-02	.9560	6.870	544.0
175	1 0000	192 00	.16112-01	.1941-01	.1941-01	.9000	.5650-03	.6806-03	.4348	3.134	538.1
175	1.0000	193.00	.18081-01	.2179-01	.2179-01	.9000	.6340-03	.7640-03	.4874	3.629	538.9
175	1.0000	194.00	.13136-01	.1582-01	.1582-01	.9000	.4606-03	.5548-03	.3548	2.833	537.3
175	1 0000	195.00	.12484-01	.1503-01	.1503-01	.9000	.4378-03	.5271-03	.3376	2.516	536.5
175	2 0000	196.00	.99609-02	.1199-01	.1199-01	.9000	.3493-03	.4206-03	.2694	2.008	536.4
175	2 0000	197 00	.11944-01	.1438-01	.1438-01	.9000	.4188-03	.5043-03	.3231	2.409	536.3
175	2.0000	198 00	.10560-01	.1271-01	.1271-01	.9000	.3703-03	.4459-03	.2857	2.130	536.1
175	2 0000	199 00	.92463-02	.1113-01	.1113-01	.9000	.3242-03	.3904-03	.2502	1.866	536.0
175	2 0000	200 00	.56804-02	.6839-02	.6839-02	.9000	.1992-03	.2398-03	.1538	1.187	535.5
175	3 0000	201 00	.70481-02	.8486-02	.8486-02	.9000	.2472-03	.2976-03	.1908	1.472	535.7

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2798

OH84B 60-O WINDOWS

(R4UW18)

WINDOWS

PARAMETRIC DATA

MACH = 7.990 ALPHA = 40.00 BETA = -2.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
93	2.993	7.990	40.02	-2.035	672.1	1328	96.43	.6941-01	3.102	3846.	.1943-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
93	4359-01	.2343-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW, °C	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
93	1.0000	191.00	.39032-01	.4703-01	.4703-01	.9000	.1701-02	.2050-02	1.329	9.535	546.7
93	1.0000	192.00	.19752-01	.2377-01	.2377-01	.9000	.8609-03	.1036-02	.6768	4.870	541.5
93	1.0000	193.00	.19416-01	.2336-01	.2336-01	.9000	.8463-03	.1018-02	.6652	4.945	541.7
93	1.0000	194.00	.11497-01	.1382-01	.1382-01	.9000	.5011-03	.6025-03	.3954	3.155	538.5
93	1.0000	195.00	.14881-01	.1790-01	.1790-01	.9000	.6486-03	.7801-03	.5109	3.802	540.0
93	2.0000	196.00	.82359-02	.9897-02	.9897-02	.9000	.3590-03	.4314-03	.2839	2.116	536.7
93	2.0000	197.00	.14479-01	.1741-01	.1741-01	.9000	.6311-03	.7589-03	.4974	3.703	539.4
93	2.0000	198.00	.10739-01	.1291-01	.1291-01	.9000	.4681-03	.5627-03	.3696	2.753	538.0
93	2.0000	199.00	.10763-01	.1294-01	.1294-01	.9000	.4691-03	.5640-03	.3703	2.758	538.3
93	2.0000	200.00	.42447-02	.5100-02	.5100-02	.9000	.1850-03	.2223-03	1.465	1.130	536.0
93	3.0000	201.00	.71986-02	.8651-02	.8651-02	.9000	.3138-03	.3770-03	.2482	1.914	536.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2799

OH84B 60-0 WINDOWS

(R4UW21)

## WINDOWS

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = .7000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TC DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
194	.5043	7.900	39.98	-1.003	100.4	1251.	92.77	.1116-01	.4876	3730.	.3247-03	.7465-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
194	.1710-01	5695-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	OTWDT DEG. R /SEC	TW DEG. R
194	1.0000	191.00	.23250-01	.2815-01	.2815-01	.9000	.3976-03	.4815-03	.2857	2.065	532.2
194	1.0000	192.00	.17114-01	.2072-01	.2072-01	.9000	.2927-03	.3544-03	.2104	1.521	531.9
194	1.0000	193.00	.12974-01	.1570-01	.1570-01	.9000	.2219-03	.2686-03	.1597	1.194	531.0
194	1.0000	194.00	.59651-02	.7217-02	.7217-02	.9000	.1020-03	.1234-03	.7356-01	.5896	529.6
194	1.0000	195.00	.10476-01	.1268-01	.1268-01	.9000	.1792-03	.2169-03	.1290	.9642	530.9
194	2.0000	196.00	.54702-02	.6617-02	.6617-02	.9000	.9356-04	.1132-03	.6750-01	.5051	529.2
194	2.0000	197.00	.89213-02	.1080-01	.1080-01	.9000	.1526-03	.1846-03	.1099	.8218	530.4
194	2.0000	198.00	.66836-02	.8086-02	.8086-02	.9000	.1143-03	.1383-03	.8244-01	.6167	529.5
194	2.0000	199.00	.63998-02	.7743-02	.7743-02	.9000	.1095-03	.1324-03	.7891-01	.5902	529.8
194	2.0000	200.00	.44655-02	.5402-02	.5402-02	.9000	.7637-04	.9238-04	.5512-01	.4267	529.0
194	3.0000	201.00	.48328-02	.5847-02	.5847-02	.9000	.8266-04	.1000-03	.5962-01	.4614	529.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2800

OH84B 60-0 WINDOWS

(R4UW21)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
181	.9960	7.940	39.97	-1.003	203.7	1262	92.71	.2191-01	.9670	3748.	.6379-03	.7460-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
181	.2412-01	.4067-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
181	1.0000	191.00	.34083-01	.4129-01	.4129-01	.9000	.8221-03	.9961-03	.5940	4.279	539.2
181	1.0000	192.00	.18896-01	.2288-01	.2288-01	.9000	.4558-03	.5518-03	.3306	2.385	536.4
181	1.0000	193.00	.16707-01	.2022-01	.2022-01	.9000	.4030-03	.4878-03	.2925	2.181	536.0
181	1.0000	194.00	.10730-01	.1298-01	.1298-01	.9000	.2588-03	.3132-03	.1881	1.504	534.9
181	1.0000	195.00	.11476-01	.1389-01	.1389-01	.9000	.2768-03	.3350-03	.2012	1.501	534.9
181	2.0000	196.00	.87811-02	.1062-01	.1062-01	.9000	.2118-03	.2562-03	.1541	1.151	533.9
181	2.0000	197.00	.10051-01	.1216-01	.1216-01	.9000	.2425-03	.2934-03	.1763	1.315	534.6
181	2.0000	198.00	.90664-02	.1097-01	.1097-01	.9000	.2187-03	.2646-03	.1591	1.188	534.1
181	2.0000	199.00	.80009-02	.9680-02	.9680-02	.9000	.1930-03	.2335-03	.1404	1.048	534.2
181	2.0000	200.00	.44872-02	.5427-02	.5427-02	.9000	.1082-03	.1309-03	.7883-01	.6089	533.3
181	3.0000	201.00	.47827-02	.5785-02	.5785-02	.9000	.1154-03	.1396-03	.8398-01	.6485	533.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2801

OH84B 60-0 WINDOWS

(R4UW21)

## WINDOWS

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = 3000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
169	2.008	7.980	40.02	-1.013	435.3	1300	94.62	.4532-01	2.020	3805.	.1293-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
169	.3505-01	.2866-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
169	1.0000	191.00	.42161-01	.5103-01	.5103-01	.9000	.1478-02	.1788-02	1.105	7.907	552.0
169	1.0000	192.00	.23186-01	.2801-01	.2801-01	.9000	.8126-03	.9818-03	.6128	4.400	545.6
169	1.0000	193.00	.18924-01	.2286-01	.2286-01	.9000	.6632-03	.8011-03	.5007	3.717	544.6
169	1.0000	194.00	.15686-01	.1894-01	.1894-01	.9000	.5497-03	.6638-03	.4156	3.308	543.6
169	1.0000	195.00	.13574-01	.1639-01	.1639-01	.9000	.4757-03	.5743-03	.3601	2.676	542.6
169	2.0000	196.00	.11957-01	.1443-01	.1443-01	.9000	.4190-03	.5058-03	.3175	2.361	541.9
169	2.0000	197.00	.12493-01	.1508-01	.1508-01	.9000	.4378-03	.5285-03	.3317	2.466	542.1
169	2.0000	198.00	.11258-01	.1359-01	.1359-01	.9000	.3946-03	.4762-03	.2990	2.223	541.8
169	2.0000	199.00	.95015-02	.1147-01	.1147-01	.9000	.3330-03	.4019-03	.2523	1.876	541.9
169	2.0000	200.00	.52840-02	.6375-02	.6375-02	.9000	.1852-03	.2234-03	.1406	1.082	540.5
169	3.0000	201.00	.74988-02	.9051-02	.9051-02	.9000	.2628-03	.3172-03	.1992	1.532	541.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2802

OH84B 60-0 WINDOWS

(R4UW21)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = -1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TC DEG. °	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
88	3.008	7.990	40.09	-1.038	670.2	1321	95.92	.6921-01	3.093	3836.	.1947-02	.7719-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
88	.4348-01	.2339-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
88	1.0000	191.00	.41388-01	.4999-01	.4999-01	.9000	.1800-02	.2174-02	1.381	9.880	553.2
88	1.0000	192.00	.21617-01	.2606-01	.2606-01	.9000	.9400-03	.1133-02	.7276	5.222	546.6
88	1.0000	193.00	.19715-01	.2377-01	.2377-01	.9000	.8573-03	.1033-02	.6641	4.927	546.0
88	1.0000	194.00	.12713-01	.1532-01	.1532-01	.9000	.5528-03	.6660-03	.4296	3.419	543.6
88	1.0000	195.00	.15421-01	.1858-01	.1858-01	.9000	.6706-03	.8080-03	.5205	3.865	544.4
88	2.0000	196.00	.90242-02	.1087-01	.1087-01	.9000	.3924-03	.4725-03	.3057	2.272	541.8
88	2.0000	197.00	.15765-01	.1900-01	.1900-01	.9000	.6855-03	.8260-03	.5322	3.951	544.4
88	2.0000	198.00	.10164-01	.1224-01	.1224-01	.9000	.4420-03	.5322-03	.3440	2.557	542.2
88	2.0000	199.00	.10863-01	.1308-01	.1308-01	.9000	.4724-03	.5690-03	.3675	2.730	542.8
88	2.0000	200.00	.44343-02	.5339-02	.5339-02	.9000	.1928-03	.2321-03	.1504	1.157	540.9
88	3.0000	201.00	.69223-02	.8336-02	.8336-02	.9000	.3010-03	.3625-03	.2344	1.802	542.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2803

OH84B 60-0 WINDOWS

(R4UW22)

WINDOWS

PARAMETRIC DATA

MACH = 8.100 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 0.100 SPDGRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TC DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
18	.5054	7.900	40.00	-.3140-02	100.3	1248	92.54	.1114-01	.4869	3726.	.3250-03	.7447-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
18	.1708-01	.5691-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
18	1.0000	191.00	.26487-01	.3213-01	.3213-01	.9000	.4525-03	.5488-03	.3216	2.319	537.0
18	1.0000	192.00	.21452-01	.2602-01	.2602-01	.9000	.3665-03	.4444-03	.2607	1.880	536.4
18	1.0000	193.00	.16054-01	.1946-01	.1946-01	.9000	.2742-03	.3325-03	.1954	1.457	535.2
18	1.0000	194.00	.80737-02	.9785-02	.9785-02	.9000	.1379-03	.1672-03	.9841-01	7870	534.1
18	1.0000	195.00	.11578-01	.1403-01	.1403-01	.9000	.1978-03	.2397-03	.1411	1.053	534.5
18	2.0000	196.00	.64988-02	.7875-02	.7875-02	.9000	.1110-03	.1345-03	.7927-01	.5917	533.7
18	2.0000	197.00	.97718-02	.1184-01	.1184-01	.9000	.1669-03	.2023-03	.1191	.8884	534.5
18	2.0000	198.00	.73305-02	.8883-02	.8883-02	.9000	.1252-03	.1517-03	.8940-01	.6674	533.7
18	2.0000	199.00	.70054-02	.8489-02	.8489-02	.9000	.1197-03	.1450-03	.8542-01	.6376	533.9
18	2.0000	200.00	.40747-02	.4938-02	.4938-02	.9000	.6961-04	.8435-04	.4969-01	.3837	533.8
18	3.0000	201.00	.45061-02	.5460-02	.5460-02	.9000	.7698-04	.9328-04	.5497-01	.4245	533.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2804

OH84B 60-0 WINDOWS

(R4UW22)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
34	1.029	7.940	39.99	.1042-02	208.4	1254.	92.12	.2242-01	.9894	3736.	.6568-03	.7413-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
34	.2437-01	.4005-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/ O	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
34	1.0000	191.00	.38381-01	.4657-01	.4657-01	.9000	.9355-03	.1135-02	.6671	4.803	540.6
34	1.0000	192.00	.24962-01	.3026-01	.3026-01	.9000	.6084-03	.7376-03	.4355	3.139	537.9
34	1.0000	193.00	.17890-01	.2168-01	.2168-01	.9000	.4360-03	.5284-03	.3126	2.330	536.7
34	1.0000	194.00	.13454-01	.1630-01	.1630-01	.9000	.3279-03	.3974-03	.2351	1.878	536.6
34	1.0000	195.00	.13068-01	.1583-01	.1583-01	.9000	.3185-03	.3859-03	.2287	1.705	535.7
34	2.0000	196.00	.10595-01	.1284-01	.1284-01	.9000	.2582-03	.3129-03	.1854	1.382	535.8
34	2.0000	197.00	.10723-01	.1299-01	.1299-01	.9000	.2614-03	.3166-03	.1878	1.401	535.2
34	2.0000	198.00	.10643-01	.1289-01	.1289-01	.9000	.2594-03	.3142-03	.1863	1.390	535.3
34	2.0000	199.00	.81977-02	.9929-02	.9929-02	.9000	.1998-03	.2420-03	.1436	1.072	534.8
34	2.0000	200.00	.46632-02	.5649-02	.5649-02	.9000	.1137-03	.1377-03	.8167-01	6.303	535.0
34	3.0000	201.00	.53362-02	.6463-02	.6463-02	.9000	.1301-03	.1575-03	.9352-01	.7219	534.6



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2805

OH84B 60-0 WINDOWS

(R4UW22)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 0000  
 BDFLAP = 1000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
75	2.004	7.980	40.04	- 1423-06	434.9	1301	94.69	4527-01	2.018	3807.	.1291-02	.7620-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
75	.3503-01	.2868-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
75	1.0000	191.00	44868-01	.5425-01	5425-01	.9000	.1572-02	.1901-02	1.182	8.474	548.7
75	1.0000	192.00	.27316-01	.3298-01	.3298-01	.9000	.9570-03	.1155-02	7247	5.210	543.4
75	1.0000	193.00	.19215-01	.2319-01	2319-01	9000	6732-03	.8123-03	.5112	3.801	541.3
75	1.0000	194.00	16907-01	.2040-01	2040-01	9000	.5923-03	7146-03	.4499	3.585	541.1
75	1.0000	195.00	.14526-01	.1752-01	1752-01	.9000	5089-03	6138-03	3873	2.882	539.7
75	2.0000	196.00	.13218-01	.1594-01	.1594-01	.9000	.4631-03	5585-03	.3526	2.624	539.3
75	2.0000	197.00	.12065-01	.1455-01	1455-01	9000	4227-03	.5097-03	.3219	2.397	539.0
75	2.0000	198.00	12677-01	1529-01	1529-01	.9000	4441-03	.5356-03	3382	2.518	539.0
75	2.0000	199.00	98046-02	1182-01	1182-01	9000	.3435-03	4142-03	.2616	1.947	539.1
75	2.0000	200.00	54713-02	.6596-02	.6596-02	9000	1917-03	2311-03	.1462	1.127	537.7
75	3.0000	201.00	80486-02	.9706-02	9706-02	9000	.2820-03	3400-03	2147	1.654	539.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2806

OH84B 60-0 WINDOWS

(R4UW22)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BOFLAP = .3000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TC DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
84	3.017	7.990	40.07	.2139-02	669.8	1318.	95.71	.6917-01	3.091	3832.	.1951-02	.7701-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
84	.4345-01	.2336-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
84	1.0000	191.00	.45551-01	.5503-01	.5503-01	.9000	.1979-02	.2391-02	1.515	10.84	552.5
84	1.0000	192.00	.28477-01	.3435-01	.3435-01	.9000	.1237-02	.1492-02	.9541	6.847	546.7
84	1.0000	193.00	.19962-01	.2406-01	.2406-01	.9000	.8674-03	.1045-02	.6715	4.988	543.5
84	1.0000	194.00	.14952-01	.1801-01	.1801-01	.9000	.6497-03	.7828-03	.5038	4.012	542.3
84	1.0000	195.00	.15397-01	.1855-01	.1855-01	.9000	.6690-03	.8060-03	.5188	3.856	542.3
84	2.0000	196.00	.11312-01	.1362-01	.1362-01	.9000	.4916-03	.5920-03	.3819	2.840	540.8
84	2.0000	197.00	.15688-01	.1890-01	.1890-01	.9000	.6817-03	.3213-03	.5285	3.928	542.4
84	2.0000	198.00	.12296-01	.1481-01	.1481-01	.9000	.5343-03	.6435-03	.4149	3.085	541.2
84	2.0000	199.00	.11991-01	.1444-01	.1444-01	.9000	.5210-03	.6276-03	.4044	3.007	541.5
84	2.0000	200.00	.48372-02	.5823-02	.5823-02	.9000	.2102-03	.2530-03	.1637	1.260	539.0
84	3.0000	201.00	.79837-02	.9612-02	.9612-02	.9000	.3469-03	.4177-03	.2698	2.077	539.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2807

OH84B 60-0 WINDOWS

(R4UW22)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
147	3.672	8.000	40.10	-.2161-02	850.8	1353	98 02	.8715-01	3.904	3883	.2400-02	.7888-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
147	4906-01	.2112-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
147	1 0000	191 00	.46652-01	.5622-01	.5622-01	.9000	.2289-02	.2758-02	1.819	12.98	557.9
147	1.0000	192 00	.33959-01	.4086-01	.4086-01	.9000	.1666-02	.2005-02	1.334	9 554	551.7
147	1 0000	193 00	.22424-01	.2695-01	.2695-01	.9000	.1100-02	.1322-02	.8863	6 572	547.0
147	1.0000	194 00	.13398-01	.1609-01	.1609-01	.9000	.6573-03	.7894-03	.5311	4 225	544.6
147	1.0000	195 00	.14765-01	.1773-01	.1773-01	.9000	.7244-03	.8699-03	.5857	4.349	544.1
147	2 0000	196 00	.11037-01	.1325-01	.1325-01	.9000	.5415-03	.6500-03	.4386	3 259	542.7
147	2 0000	197 00	.14422-01	.1732-01	.1732-01	.9000	.7075-03	.8497-03	.5721	4 248	544.1
147	2.0000	198 00	.14052-01	.1687-01	.1687-01	.9000	.6894-03	.8278-03	.5577	4.142	543.7
147	2 0000	199 00	.15020-01	.1804-01	.1804-01	.9000	.7369-03	.8851-03	.5951	4.417	545.1
147	2 0000	200 00	.50625-02	.6075-02	.6075-02	.9000	.2484-03	.2980-03	.2016	1.551	541.0
147	3 0000	201 00	.75771-02	.9096-02	.9096-02	.9000	.3717-03	.4462-03	.3012	2.316	542.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2808

OH84B 60-0 WINDOWS

(R4UW24)

WINDOWS

PARAMETRIC DATA

MACH = 7.990 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEC R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
87	3.025	7.990	40 26	.9099-02	670.1	1316	95 56	.6920-01	3.092	3829.	.1955-02	.7690-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
87	.4345-01	.2333-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
87	1.0000	191 00	.45551-01	.5506-01	.5506-01	.9000	.1979-02	.2393-02	1.507	10.78	554.0
87	1.0000	192 00	.28549-01	.3446-01	.3446-01	.9000	.1241-02	.1497-02	.9521	6.828	548.1
87	1.0000	193 00	.20114-01	.2426-01	.2426-01	.9000	.8740-03	.1054-02	.6734	4.998	545.2
87	1.0000	194 00	.13605-01	.1640-01	.1640-01	.9000	.5912-03	.7128-03	.4559	3.626	544.5
87	1.0000	195 00	.14935-01	.1800-01	.1800-01	.9000	.6490-03	.7823-03	.5009	3.720	543.8
87	2.0000	196 00	.11176-01	.1347-01	.1347-01	.9000	.4856-03	.5852-03	.3755	2.790	542.5
87	2.0000	197 00	.14610-01	.1761-01	.1761-01	.9000	.6348-03	.7654-03	.4898	3.637	544.1
87	2.0000	198 00	.12696-01	.1530-01	.1530-01	.9000	.5517-03	.6649-03	.4263	3.168	542.9
87	2.0000	199 00	.12342-01	.1488-01	.1488-01	.9000	.5363-03	.6464-03	.4142	3.077	543.3
87	2.0000	200 00	.46174-02	.5562-02	.5562-02	.9000	.2006-03	.2417-03	.1554	1.196	540.9
87	3.0000	201 00	.76027-02	.9161-02	.9161-02	.9000	.3304-03	.3981-03	.2556	1.965	542.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2809

OH84B 60-0 WINDOWS

(R4UW25)

## WINDOWS

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 1.000    ELEVON = .0000  
 BOFLAP = .1000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
22	.5090	7.900	40.03	1.039	101.5	1252.	92.84	.1128-01	.4927	3732.	.3279-03	.7471-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
22	.1719-01	.5668-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW, TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
22	1.0000	191.00	.29713-01	.3601-01	.3601-01	.9000	.5109-03	.6192-03	.3657	2.639	535.8
22	1.0000	192.00	.28607-01	.3466-01	.3466-01	.9000	.4919-03	.5960-03	.3523	2.543	535.4
22	1.0000	193.00	.20080-01	.2432-01	.2432-01	.9000	.3453-03	.4182-03	.2477	1.849	534.2
22	1.0000	194.00	.10978-01	.1329-01	.1329-01	.9000	.1888-03	.2285-03	.1358	1.087	532.3
22	1.0000	195.00	.14993-01	.1816-01	.1816-01	.9000	.2578-03	.3122-03	.1852	1.383	533.2
22	2.0000	196.00	.82484-02	.9986-02	.9986-02	.9000	.1418-03	.1717-03	.1020	.7623	532.2
22	2.0000	197.00	.11386-01	.1379-01	.1379-01	.9000	.1958-03	.2370-03	.1408	1.051	532.6
22	2.0000	198.00	.90302-02	.1093-01	.1093-01	.9000	.1553-03	.1880-03	.1117	.8344	532.3
22	2.0000	199.00	.79010-02	.9566-02	.9566-02	.9000	.1359-03	.1645-03	.9771-01	.7299	532.5
22	2.0000	200.00	.43294-02	.5241-02	.5241-02	.9000	.7444-04	.9011-04	.5358-01	.4141	531.9
22	3.0000	201.00	.47891-02	.5797-02	.5797-02	.9000	.8235-04	.9968-04	.5927-01	.4581	531.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2810

OH84B 60-0 WINDOWS

(R4UW25)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 1.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
37	1.021	7.940	40.06	1.019	207.3	1256.	92 27	.2230-01	.9842	3739.	.6523-03	.7425-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
37	.2432-01	.4020-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
37	1.0000	191.00	.41724-01	.5062-01	.5062-01	.9000	.1015-02	.1231-02	.7251	5.219	541.0
37	1.0000	192.00	.33699-01	.4085-01	.4085-01	.9000	.8194-03	.9934-03	.5874	4.232	538.8
37	1.0000	193.00	.20865-01	.2528-01	.2528-01	.9000	.5073-03	.6146-03	.3649	2.720	536.5
37	1.0000	194.00	.17249-01	.2090-01	.2090-01	.9000	.4194-03	.5081-03	.3017	2.410	536.3
37	1.0000	195.00	.16081-01	.1947-01	.1947-01	.9000	.3910-03	.4735-03	.2817	2.101	535.2
37	2.0000	196.00	.13178-01	.1596-01	.1596-01	.9000	.3204-03	.3881-03	.2307	1.720	535.8
37	2.0000	197.00	.12032-01	.1457-01	.1457-01	.9000	.2926-03	.3543-03	.2109	1.574	534.8
37	2.0000	198.00	.11419-01	.1383-01	.1383-01	.9000	.2776-03	.3362-03	.2001	1.492	535.1
37	2.0000	199.00	.85801-02	.1039-01	.1039-01	.9000	.2086-03	.2526-03	.1505	1.123	534.3
37	2.0000	200.00	.51167-02	.6197-02	.6197-02	.9000	.1244-03	.1507-03	.8964-01	.6918	535.1
37	3.0000	201.00	.63407-02	.7678-02	.7678-02	.9000	.1542-03	.1867-03	.1112	.8582	534.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2811

OH84B 60-0 WINDOWS

(R4UW251)

WINDOWS

PARAMETRIC DATA

MACH = 9.000 ALPHA = 40.00 BETA = 1.000 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TC DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
72	2.004	7.980	40.09	1.028	435.4	1302	94.76	.4533-01	2.021	3808.	.1291-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
72	3506-01	2868-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
72	1.0000	191.00	.47541-01	.5748-01	.5748-01	.9000	.1667-02	.2015-02	1.254	8.992	549.0
72	1.0000	192.00	.36585-01	.4421-01	.4421-01	.9000	.1283-02	.1550-02	.9683	6.950	546.7
72	1.0000	193.00	.20377-01	.2458-01	.2458-01	.9000	.7144-03	.8619-03	.5433	4.040	541.2
72	1.0000	194.00	.20056-01	.2420-01	.2420-01	.9000	.7031-03	.8485-03	.5342	4.255	541.9
72	1.0000	195.00	.17305-01	.2088-01	.2088-01	.9000	.6067-03	.7319-03	.4616	3.433	540.8
72	2.0000	196.00	.15671-01	.1890-01	.1890-01	.9000	.5494-03	.6627-03	.4181	3.111	540.6
72	2.0000	197.00	.12580-01	.1518-01	.1518-01	.9000	.4414-03	.5322-03	.3365	2.505	539.3
72	2.0000	198.00	.13762-01	.1660-01	.1660-01	.9000	.4825-03	.5819-03	.3674	2.734	540.1
72	2.0000	199.00	.11436-01	.1379-01	.1379-01	.9000	.4009-03	.4835-03	.3056	2.275	539.3
72	2.0000	200.00	.55187-02	.6653-02	.6653-02	.9000	.1935-03	.2332-03	.1477	1.138	538.0
72	3.0000	201.00	.86357-02	.1041-01	.1041-01	.9000	.3027-03	.3651-03	.2308	1.777	539.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VWF HYPERSONIC TUNNEL

PAGE 2812

OH84B 60-0 WINDOWS

(R4UW26)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 2.000 ELEVON = .0000  
 BDFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
25	.5071	7.900	39.99	2.019	101.0	1251	92.77	.1122-01	.4903	3730.	.3265-03	.7465-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
25	.1715-01	.5679-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/ TO TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
25	1.0000	191 00	.30513-01	.3699-01	.3699-01	.9001	.5233-03	.6343-03	.3739	2.698	536.2
25	1.0000	192.00	.36969-01	.4482-01	.4482-01	.9001	.6340-03	.7686-03	.4527	3.266	536.6
25	1.0000	193.00	.25043-01	.3034-01	.3034-01	.9001	.4295-03	.5203-03	.3076	2.296	534.4
25	1.0000	194 00	.13080-01	.1584-01	.1584-01	.9001	.2243-03	.2717-03	.1610	1.288	533.0
25	1.0000	195.00	.17912-01	.2170-01	.2170-01	.9000	.3072-03	.3721-03	.2202	1.644	533.8
25	2.0000	196 00	.97669-02	.1183-01	.1183-01	.9000	.1675-03	.2028-03	.1202	.8979	532.9
25	2.0000	197 00	.12525-01	.1517-01	.1517-01	.9000	.2148-03	.2601-03	.1542	1.152	532.8
25	2.0000	198 00	.96589-02	.1170-01	.1170-01	.9000	.1656-03	.2006-03	.1189	.8881	532.8
25	2.0000	199 00	.82975-02	.1005-01	.1005-01	.9000	.1423-03	.1723-03	.1022	.7631	532.7
25	2.0000	200 00	.46870-02	.5675-02	.5675-02	.9000	.8038-04	.9733-04	.5773-01	.4461	532.5
25	3.0000	201.00	.54265-02	.6570-02	.6570-02	.9000	.9306-04	.1127-03	.6687-01	.5168	532.1



DATE 23 FEB 80

OH849 MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2813

OH84B 60-0 WINDOWS

(R4UW26)

## WINDOWS

## PARAMETRIC DATA

MACH = 1.000    ALPHA = 40.00    BETA = 2.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
40	1.021	7.940	40.02	2.016	206.8	1254	92.12	.2225-01	.9818	3736.	.6518-03	.7413-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
40	.2428-01	.4021-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
40	1.0000	191.00	.41906-01	.5086-01	.5086-01	9000	.1017-02	.1235-02	.7245	5.213	541.6
40	1.0000	192.00	.42361-01	.5141-01	.5141-01	.9000	.1028-02	.1248-02	.7327	5.273	541.3
40	1.0000	193.00	.25956-01	.3147-01	.3147-01	9000	.6302-03	.7640-03	.4511	3.361	537.8
40	1.0000	194.00	.20127-01	.2440-01	.2440-01	9000	.4887-03	.5923-03	.3501	2.796	537.2
40	1.0000	195.00	.20533-01	.2488-01	.2488-01	9000	.4985-03	.6042-03	.3575	2.665	536.6
40	2.0000	196.00	.14901-01	.1806-01	.1806-01	.9000	.3618-03	.4384-03	.2594	1.934	536.6
40	2.0000	197.00	.12455-01	.1509-01	.1509-01	.9000	.3024-03	.3663-03	.2172	1.620	535.5
40	2.0000	198.00	.12292-01	.1489-01	.1489-01	.9000	.2984-03	.3616-03	.2143	1.598	535.7
40	2.0000	199.00	.98342-02	.1191-01	.1191-01	9000	.2388-03	.2892-03	.1716	1.280	534.9
40	2.0000	200.00	.66910-02	.8106-02	.8106-02	9000	.1625-03	.1968-03	.1166	.8998	535.7
40	3.0000	201.00	.66984-02	.8114-02	.8114-02	.9000	.1626-03	.1970-03	.1169	.9019	535.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2814

OH84B 60-0 WINDOWS

(R4UW26)

WINDOWS

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = 2.000 ELEVON = .0000  
 BOFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
69	2.003	7.980	40 01	2.011	433.8	1292	94.54	.4516-01	2.013	3804.	.1289-02	.7608-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
69	.3498-01	.2869-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAH/TO	H(TO) BTU/R FT2SEC	H(TAH) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
69	1.0000	191.00	.46802-01	.5661-01	.5661-01	.9000	.1637-02	.1980-02	1.227	8.795	549.2
69	1.0000	192.00	.42534-01	.5144-01	.5144-01	.9000	.1488-02	.1799-02	1.116	7.999	548.7
69	1.0000	193.00	.24654-01	.2977-01	.2977-01	.9000	.8624-03	.1041-02	.6519	4.844	542.8
69	1.0000	194.00	.21364-01	.2580-01	.2580-01	.9000	.7473-03	.9024-03	.5647	4.495	543.0
69	1.0000	195.00	.19691-01	.2378-01	.2378-01	.9000	.6888-03	.8316-03	.5206	3.869	542.8
69	2.0000	196.00	.17627-01	.2128-01	.2128-01	.9000	.6166-03	.7442-03	.4669	3.472	541.4
69	2.0000	197.00	.13052-01	.1575-01	.1575-01	.9000	.4565-03	.5508-03	.3463	2.577	540.0
69	2.0000	198.00	.16428-01	.1983-01	.1983-01	.9000	.5746-03	.6935-03	.4354	3.238	541.0
69	2.0000	199.00	.12367-01	.1492-01	.1492-01	.9000	.4326-03	.5220-03	.3280	2.440	540.5
69	2.0000	200.00	.59405-02	.7163-02	.7163-02	.9000	.2078-03	.2505-03	.1581	1.219	537.6
69	3.0000	201.00	.82164-02	.9911-02	.9911-02	.9000	.2874-03	.3467-03	.2183	1.681	539.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2815

OH84B 60-0 WINDOWS

(R4UW27)

WINDOWS

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = 4.000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
28	.5063	7.900	40.02	4 000	100 5	124E.	92.54	.1116-01	.4878	3726.	.3256-03	7447-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
28	1710-01	5686-01

\*\*\*TEST DATA\*\*\*

PUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R	H(TAW) BTU/R	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
28	1 0000	191 00	.27040-01	.3279-01	.3279-01	.9000	.4623-03	.5606-03	.3290	2.374	536.1
28	1.0000	192.00	.48819-01	.5924-01	.5924-01	.9000	.8347-03	.1013-02	.5921	4.267	538.4
28	1.0000	193.00	.41097-01	.4985-01	.4985-01	.9000	.7027-03	.8524-03	.4992	3.720	537.2
28	1.0000	194.00	.16921-01	.2051-01	.2051-01	.9000	.2893-03	.3507-03	.2064	1.650	534.3
28	1.0000	195 00	.30560-01	.3705-01	.3705-01	.9000	.5225-03	.6335-03	.3721	2.775	535.6
28	2.0000	196 00	.13506-01	.1636-01	.1636-01	.9000	.2309-03	.2798-03	.1650	1.232	533.1
28	2.0000	197 00	.17767-01	.2153-01	.2153-01	.9000	.3038-03	.3681-03	.2169	1.619	533.8
28	2 0000	198 00	.11433-01	.1385-01	.1385-01	.9000	.1955-03	.2369-03	.1397	1.043	533.2
28	2.0000	199.00	.89950-02	.1090-01	.1090-01	.9000	.1538-03	.1863-03	.1099	.8211	532.9
28	2 0000	200 00	.56960-02	.6900-02	.6900-02	.9000	.9739-04	.1180-03	.6966-01	.5383	532.4
28	3 0000	201 00	.65395-02	.7921-02	.7921-02	.9000	.1118-03	.1354-03	.7999-01	.6181	532.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2816

OH84B 60-0 WINDOWS

(R4UW27)

WINDOWS

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 4.000 ELEVON = .0000  
 BOFLAP = 0.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
43	1.018	7.940	40.00	4.023	206.3	1254	92.12	.2219-01	9794	3736.	.6502-03	.7413-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
43	.2425-01	.4025-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
43	1.0000	191.00	.37578-01	.4561-01	.4561-01	.9000	.9112-03	.1106-02	.6490	4.670	541.5
43	1.0000	192.00	.57481-01	.6985-01	.6985-01	.9000	.1394-02	.1694-02	.9868	7.085	545.7
43	1.0000	193.00	.48694-01	.5911-01	.5911-01	.9000	.1181-02	.1434-02	.8398	6.242	542.5
43	1.0000	194.00	.27473-01	.3332-01	.3332-01	.9000	.6662-03	.8079-03	.4763	3.800	538.7
43	1.0000	195.00	.34725-01	.4212-01	.4212-01	.9000	.8421-03	.1021-02	.6013	4.475	539.6
43	2.0000	196.00	.19505-01	.2364-01	.2364-01	.9000	.4730-03	.5732-03	.3391	2.527	536.8
43	2.0000	197.00	.19232-01	.2330-01	.2330-01	.9000	.4664-03	.5651-03	.3346	2.494	536.3
43	2.0000	198.00	.14606-01	.1770-01	.1770-01	.9000	.3542-03	.4291-03	.2543	1.896	535.8
43	2.0000	199.00	.97014-02	.1175-01	.1175-01	.9000	.2353-03	.2850-03	.1690	1.261	535.1
43	2.0000	200.00	.91538-02	.1109-01	.1109-01	.9000	.2220-03	.2689-03	.1595	1.231	535.2
43	3.0000	201.00	.78213-02	.9473-02	.9473-02	.9000	.1897-03	.2297-03	.1364	1.053	534.6

DATE 23 FEB 80

OH84B MODEL 50-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2817

OH84B 60-0 WINDOWS

(R4UW27)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 4.000    ELEVON = .0000  
 BDFLAP = .1000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
65	1.997	7.980	40.03	4.032	434.4	1303	94.84	.4522-01	2.016	3810.	.1287-02	.7631-07

RUN NUMBER	HREF BTU/ R FT <sup>2</sup> SEC	STN NO REF (R) = 0175
65	.3502-01	.2873-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW' 0 TAW/TO	H(T0) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
65	1.0000	191.00	.45051-01	.5450-01	.5450-01	.9000	.1578-02	.1909-02	1.186	8.489	551.3
65	1.0000	192.00	.64532-01	.7818-01	.7818-01	.9000	.2260-02	.2738-02	1.686	12.04	556.6
65	1.0000	193.00	.46163-01	.5583-01	.5583-01	.9000	.1617-02	.1955-02	1.216	9.001	550.5
65	1.0000	194.00	.26041-01	.3146-01	.3146-01	.9000	.9120-03	.1102-02	.6895	5.478	546.7
65	1.0000	195.00	.32257-01	.3899-01	.3899-01	.9000	.1130-02	.1365-02	.8527	6.320	547.9
65	2.0000	196.00	.20246-01	.2444-01	.2444-01	.9000	.7091-03	.8561-03	.5379	3.994	544.1
65	2.0000	197.00	.17696-01	.2136-01	.2136-01	.9000	.6198-03	.7480-03	.4708	3.498	543.1
65	2.0000	198.00	.17782-01	.2146-01	.2146-01	.9000	.6228-03	.7517-03	.4729	3.514	543.2
65	2.0000	199.00	.13553-01	.1636-01	.1636-01	.9000	.4747-03	.5728-03	.3608	2.682	542.5
65	2.0000	200.00	.96658-02	.1166-01	.1166-01	.9000	.3385-03	.4084-03	.2578	1.983	541.1
65	3.0000	201.00	.87028-02	.1050-01	.1050-01	.9000	.3048-03	.3677-03	.2322	1.787	540.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2818

OH84B 60-0 WINDOWS

(R4UW28)

WINDOWS

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 10.00    ELEVEN = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
31	.5055	7.900	40.08	9.971	100.7	1251.	92.77	.1119-01	.4887	3730.	.3255-03	.7465-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = .0175
31	.1712-01	.5688-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
31	1.0000	191.00	.90219-02	.1093-01	.1093-01	.9000	.1545-03	.1872-03	.1105	.7972	535.6
31	1.0000	192.00	.12379-01	.1500-01	.1500-01	.9000	.2120-03	.2569-03	.1516	1.094	535.6
31	1.0000	193.00	.26838-01	.3254-01	.3254-01	.9000	.4595-03	.5571-03	.3282	2.446	536.6
31	1.0000	194.00	.31907-01	.3869-01	.3869-01	.9000	.5463-03	.6625-03	.3897	3.111	537.3
31	1.0000	195.00	.19018-01	.2305-01	.2305-01	.9000	.3256-03	.3947-03	.2328	1.736	535.8
31	2.0000	196.00	.34970-01	.4240-01	.4240-01	.9000	.5988-03	.7261-03	.4271	3.183	537.3
31	2.0000	197.00	.26327-01	.3191-01	.3191-01	.9000	.4508-03	.5464-03	.3221	2.401	536.2
31	2.0000	198.00	.30726-01	.3725-01	.3725-01	.9000	.5261-03	.6378-03	.3758	2.802	536.3
31	2.0000	199.00	.20271-01	.2457-01	.2457-01	.9000	.3471-03	.4207-03	.2482	1.851	535.6
31	2.0000	200.00	.10629-01	.1288-01	.1288-01	.9000	.1820-03	.2205-03	.1303	1.006	534.7
31	3.0000	201.00	.70587-02	.8550-02	.8550-02	.9000	.1209-03	.1464-03	.8665-01	.6692	533.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2819

OH84B 60-0 WINDOWS

(R4UW28)

## WINDOWS

## PARAMETRIC DATA

MACH = 7.940 ALPHA = 40.00 BETA = 10.00 ELEVON = .0000  
 BDFLAP = .0000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEC R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
46	1.011	7.940	40.01	10.10	207.3	1264	92.86	.2230-01	.9842	3751.	.6482-03	.7472-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
46	2434-01	.4035-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
46	1.0000	191.00	.13963-01	.1691-01	.1691-01	9000	.3399-03	.4115-03	.2467	1.778	537.9
46	1.0000	192.00	.11775-01	.1425-01	.1425-01	.9000	.2866-03	.3470-03	.2082	1.502	537.2
46	1.0000	193.00	.24218-01	.2933-01	.2933-01	.9000	.5895-03	.7139-03	.4274	3.183	538.6
46	1.0000	194.00	.36381-01	.4411-01	.4411-01	.9000	.8856-03	1.074-02	.6389	5.088	542.2
46	1.0000	195.00	.19257-01	.2332-01	.2332-01	.9000	.4687-03	.5676-03	.3402	2.534	537.9
46	2.0000	196.00	.43917-01	.5324-01	.5324-01	.9000	1.069-02	.1296-02	.7717	5.738	541.8
46	2.0000	197.00	.29547-01	.3579-01	.3579-01	.9000	.7192-03	.8712-03	.5209	3.877	539.4
46	2.0000	198.00	.36138-01	.4377-01	.4377-01	.9000	.8797-03	.1065-02	.6373	4.745	539.1
46	2.0000	199.00	.24025-01	.2909-01	.2909-01	.9000	.5848-03	.7080-03	.4247	3.165	537.4
46	2.0000	200.00	.12854-01	.1555-01	.1555-01	.9000	.3129-03	.3786-03	.2279	1.759	535.3
46	3.0000	201.00	.70006-02	.8468-02	.8468-02	.9000	.1704-03	.2061-03	.1243	.9596	534.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2820

OH84B 60-0 WINDOWS

(R4UW28)

## WINDOWS

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 10.00 ELEVON = .0000  
 BDFLAP = 0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEC. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
59	1.995	7.980	40.01	10.00	433.9	1303	94.84	.4517-01	2.014	3810.	.1286-02	.7631-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
59	.3500-01	.2874-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	WINDOW	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
59	1.0000	191.00	.19241-01	.2322-01	.2322-01	.9000	.6735-03	.8128-03	.5119	3.681	542.6
59	1.0000	192.00	.15068-01	.1818-01	.1818-01	.9000	.5274-03	.6362-03	.4017	2.892	541.0
59	1.0000	193.00	.32149-01	.3882-01	.3882-01	.9000	.1125-02	.1359-02	.8531	6.333	544.6
59	1.0000	194.00	.49115-01	.5941-01	.5941-01	.9000	.1719-02	.2080-02	1.292	10.24	551.1
59	1.0000	195.00	.31826-01	.3843-01	.3843-01	.9000	.1114-02	.1345-02	.8440	6.264	545.0
59	2.0000	196.00	.50070-01	.6053-01	.6053-01	.9000	.1753-02	.2119-02	1.321	9.789	548.7
59	2.0000	197.00	.49203-01	.5948-01	.5948-01	.9000	.1722-02	.2082-02	1.298	9.619	548.7
59	2.0000	198.00	.35417-01	.4275-01	.4275-01	.9000	.1240-02	.1496-02	.9414	6.993	543.3
59	2.0000	199.00	.23375-01	.2819-01	.2819-01	.9000	.8182-03	.9868-03	.6235	4.639	540.5
59	2.0000	200.00	.11457-01	.1381-01	.1381-01	.9000	.4010-03	.4833-03	.3066	2.363	538.0
59	3.0000	201.00	.59578-02	.7177-02	.7177-02	.9000	.2085-03	.2512-03	.1599	1.233	536.0



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2821

OH84B 60-0 OMS POD

(R4UX01)

OMS POD

PARAMETRIC DATA

MACH = 1.000    ALPHA = 25.00    BETA = .0000    ELEVON = .0000  
BOFLAP = 0000    SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	T/C DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
9	1.019	7.940	24 97	.5591-06	205 0	1248	91 68	.2205-01	.9732	3727.	.6492-03	.7378-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) + 0175
9	.2415-01	4026-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAJ TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
9	1525.0	133.00	336 00	.3940-02	.4780-02	4780-02	.9000	.9517-04	.1154-03	.6762-01	.5039	537.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2822

OH84B 60-0 OMS POD

(R4UX01)

OMS POD

PARAMETRIC DATA

MACH = .000    ALPHA = 25.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = 49 00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	T J DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
8	1.994	7.980	24.96	.5594-06	433.2	1302.	94.76	.4510-01	2.010	3808.	.1284-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
8	.3497-01	.2875-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
8	1525.0	133.00	336.00	.3359-02	.4043-02	.4043-02	.9000	.1175-03	1414-03	.9038-01	.6752	532.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2823

OH84B 60-0 OMS POD

(R4UX01)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 25.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = 49.00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
7	2.996	7.990	24.92	.5613-06	666.7	1320	95.85	.6885-01	3.077	3835.	.1939-02	.7713-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) =.0175
7	.4336-01	.2344-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0 TAW' 0	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
7	1525.0	133.00	336.00	.3531-02	.4251-02	.4251-02	.9000	1531-03	.1843-03	.1194	.8888	539.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2824

OH84B 60-0 OMS POD

(R4UX01)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000 ELEVON = 0000  
BOFLAP = 000 SPDBRK = 49 00

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
6	3.633	8.000	24.95	.1253-01	846.7	1358.	98.38	.8672-01	3.885	3890.	.2379-02	.7917-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
6	4897-01	2122-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
6	1525.0	133.00	336.00	.2955-02	.3535-02	.3535-02	.9000	.1447-03	1731-03	.1197	.8955	530.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2825

OH84B 60-0 OMS POD

(R4UX02)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -4.000    ELEVON = 0000  
BDFLAP = 0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
155	2.001	7.980	29.94	-4.041	434.3	1301	94.69	.4522-01	2.016	3807.	.1289-02	.7620-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
155	3501-01	2870-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
155	1525.0	133.00	336.00	.3288-02	.3953-02	.3953-02	.9000	.1151-03	.1384-03	.8910-01	.6675	526.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2826

OH84B 60-0 OMS POD

(R4UX02)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TC DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
116	2.983	7.990	29.94	-4.039	669 2	1327	96 36	.6911-01	3 088	3845.	.1936-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
116	.4349-01	.2347-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= . TAL TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWCT DEG. R /SEC	TW DEG R
116	1525.0	133 00	336.00	.3240-02	.3884-02	.3884-02	.9000	.1409-03	.1689-03	.1127	.8444	526.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2827

OH84B 60-0 OMS POD

(R4UX02)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -4.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
129	3.686	8.000	29.95	-4.052	853.2	1352	97.95	.8740-01	3.915	3881.	.2408-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
129	4912-01	2108-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
129	1525.0	133.00	336.00	.3203-02	.3832-02	3832-02	.9000	.1573-03	.1882-03	.1295	.9694	528.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYP'ERSONIC TUNNEL

PAGE 2828

OH84B 60-0 OMS POD

(R4UX03)

OMS POD

## PARAMETRIC DATA

MACH = 3.000    ALPHA = 30.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	Q DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
152	1.983	7.980	29.96	-2.027	434.4	1309	95 27	.4523-01	2.016	3818.	.1281-02	.7667-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
152	.3505-01	.2881-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW'TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
152	1525.0	133.00	336.00	.4185-02	.5027-02	.5027-02	.9000	.1467-03	.1762-03	.1147	.8596	526.6



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2829

OH84B 60-0 OMS POD

(R4UX03)

OMS POD

PARAMETRIC DATA

MACH = 1.000    ALPHA = 30.00    BETA = -2.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
113	2.997	7.990	29.96	-2.021	672 2	1327	96.36	.6942-01	3.102	3845.	.1944-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
113	4358-01	2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
113	1525.0	133.00	336 00	.3367-02	4036-02	.4036-02	9000	.1468-03	.1759-03	.1175	.8811	525.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2830

OH84B 60-0 OMS POD

(R4UX03)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = -2.000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TC DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC -/FT2
126	3.688	8.000	29.95	-2 013	853 6	1352.	97 95	.8744-01	3.917	3881.	.2409-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
126	4913-01	.2107-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/ 0	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
126	1525.0	133.00	336.00	.2994-02	.3580-02	.3580-02	.9000	.1471-03	.1759-03	.1213	.9086	527.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2831

OH84B 60-0 OMS POD

(R4UX04)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -1.000    ELEVON = .0000  
 BOFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
149	2.015	7.980	29.95	-1.011	435.2	1297	94.40	.4531-01	2.020	3801.	.1295-02	.7596-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) =.0175
149	.3503-01	.2862-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0 TAW, O	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
149	1525.0	133.00	336.00	.2365-02	.2844-02	.2844.02	.9000	.8282-04	.9960-04	.6376-01	.4776	526.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2832

OH84B 60-0 OMS POD

(R4UX04)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -1.000    ELEVON = 0000  
BDFLAP = .000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
110	3.010	7.990	29.96	-.9974	670.7	1321	95.92	.6926-01	3.095	3836.	.1949-02	.7719-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
110	.4350-01	.2338-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG R
110	1525.0	133.00	336.00	3704-02	.4443-02	.4443-02	.9000	.1611-03	.1933-03	1280	.9590	526.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2833

OH84B 60-0 OMS POD

(R4UX04)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = -1.000    ELEVON = .0000  
BDFLAP = .3000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MJ LB-SEC /FT2
122	3.694	8.000	30 04	-.9752	852.2	1349.	97.73	8729-01	3.911	3877.	.2411-02	.7864-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
122	.4907-01	.2106-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
122	1525.0	133.00	336.00	.3466-02	.4147-02	.4147-02	.9000	.1701-03	2035-03	.1398	1.047	526.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2834

OH84B 60-0 OMS POD

(R4UX06)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA -DEG.	PO PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
10	.5027	7.900	29.95	.4910-02	98.66	123.0	91.88	.1097-01	.4790	3712.	.3221-03	.7393-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
10	.1692-01	.5712-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
10	1525.0	133.00	336.00	.9299-03	.1128-02	.1128-02	.9000	.1574-04	.1909-04	.1109-01	.8282-01	533.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4UX06)

OMS POD

PARAMETRIC DATA

MACH = 1.000    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
BDFLAP = .0000    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEC R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
47	2.016	7.980	29.96	.2452-02	435.5	129	94 40	.4534-01	2.021	3801.	.1296-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
47	3504-01	.2861-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
47	1525.0	133 00	336.00	.2679-02	.3226-02	.3226-02	.9000	.9385-04	.1130-03	.7170-01	.5356	532.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2836

OH84B 60-0 QMS-POB

(R4UX06)

QMS POD

## PARAMETRIC DATA

MACH = 7.000    ALPHA = 30.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
76	3.039	7.990	29.97	.3283-06	671 6	1314	95.41	.6936-01	3.099	3826.	.1962-02	.7678-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
76	.4349-01	.2329-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
76	1525.0	133 00	336.00	2943-02	.3534-02	.3534-02	.9000	.1280-03	.1537-03	.1006	.7537	527.5



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPER SONIC TUNNEL

PAGE 2837

OH84B 60-0 OMS POD

(R4UX06)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000 ELEVON = .0000  
BDFLAP = .000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
119	3.691	8.000	29.96	4900-02	862.0	1360	98.53	8830-01	3.956	3893.	.2419-02	.7928-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
119	4943-01	2105-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWOT DEG. R /SEC	TW DEG R
119	1525.0	133.00	336.00	.3037-02	.3639-02	.3639-02	.9000	.1501-03	.1799-03	1235	.9202	537.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 OMS POD

(R4UX08)

OMS POD

PARAMETRIC DATA

MACH = 6.000    ALPHA = 30.00    BETA = 1.000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
50	2.048	7.980	29.94	1.035	434.8	1282.	93.31	.4526-01	2.018	3779.	.1309-02	.7508-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
50	.3494-01	.2843-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
50	1525.0	133.00	336.00	.1947-02	.2343-02	.2343-02	.9000	.6802-04	.8185-04	.5159-01	.3872	523.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2839

OH84B 60-0 OMS POD

(R4UX09)

OMS POD

PARAMETRIC DATA

MACH = 6.000 ALPHA = 30.00 BETA = 2.000 ELEVON = .0000  
BDFLAP = 3000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
53	1 993	7 980	29.95	2.037	434 6	1305	94 98	.4524-01	2.017	3813.	.1286-02	7643-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
53	3504-01	.2875-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW, TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
53	1525 0	133.00	336.00	.1437-02	1724-02	.1721-02	.9000	.5035-04	.6042-04	3941-01	2959	522.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2840

OH84B 60-0 OMS POD

(R4UX10)

OMS POD

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 30.00    BETA = 2.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
54	1.990	7.980	29.95	2.038	434.8	1307	95.13	.4526-01	2.018	3815.	.1284-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
54	.3506-01	.2877-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
54	1525.0	133.00	336.00	1284-02	.1540-02	.1540-02	.9000	.4502-04	5400-04	.3537-01	.2658	520.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2841

OH84B 60-0 OMS POD

(R4UX11)

OMS POD

PARAMETRIC DATA

MACH = 11.000    ALPHA = 35.00    BETA = -4.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	T DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
164	2 005	7.980	34.98	-4.049	435.7	1302	94.76	.4536-01	2.022	3808	.1292-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
164	3507-01	.2867-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
164	1525.0	133.00	336 00	.3944-02	4740-02	.4740-02	.9000	1383-03	.1663-03	1072	.8033	526.6

DATE 23 FEB 80

OH848 MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2842

OH848 60-0 OMS POD

(R4UX11)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -4.000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
107	3.001	7.990	34.98	-4.050	670.2	1323.	96 07	.6921-01	3.093	3839.	.1944-02	.7731-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
107	.4350-01	.2341-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
107	1525.0	133.00	336.00	.4257-02	.5103-02	.5103-02	.9000	.1851-03	.2220-03	.1476	1.107	525.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2843

OH84B 60-0 OMS POD

(R4UX11)

OMS POD

PARAMETRIC DATA

MACH = 3.000    ALPHA = 35.00    BETA = -4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
141	3.698	3.000	35.01	-3.996	856.0	135.0	97.95	.8768-01	3.928	3881.	.2416-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
141	.4920-01	2105-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.7 TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
141	1525.0	133.00	336.00	.3934-02	.4710-02	.47 0-02	9000	.1936-03	2317-03	.1590	1.189	530.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2844

OH84B 60-0 OMS POD

(R4UX12)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -2.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSI	O DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
161	2.002	7.980	34.99	-2.012	436.0	130.0	94.91	.4539-01	2.023	3811.	.1291-02	.7637-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) =.0175
161	3509-01	.2869-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
161	1525.0	133.00	336.00	.4095-02	.4920-02	.4970-02	.9000	.1437-03	.1727-03	.1117	.8365	526.7



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2845

OH84B 60-0 OMS POD

(R4UX12)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -2.000    ELEVON = .0000  
BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
104	3.010	7 990	35 01	-1.989	670 6	1321	95.92	.6925-01	3.095	3836.	.1949-02	.7719-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
104	.4350-01	2338-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
104	1525.0	133 00	336 00	.3926-02	.4710-02	.4710-02	.9000	.1708-03	.2049-03	1357	1.016	526 4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2846

OH84B 60-0 OMS POD

(R4UX12)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35 00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = .0000    SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
138	3.668	8.000	35 03	-1.972	849.0	1352.	97.95	.8696-01	3.895	3881.	.2396-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
138	.4900-01	2113-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
138	1525.0	133.00	336 00	.3603-02	.4321-02	.4321-02	9000	.1765-03	.2117-03	.1436	1.069	538.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2847

OH84B 60-0 OMS POD

(R4UX13)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = -1.000 ELEVON = .0000  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
158	2.023	7.980	35.02	-1.9923	435.0	1283.	94.11	.4529-01	2.019	3795.	.1299-02	.7573-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
158	.3500-01	.2857-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H. HREF R=	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
158	1525 0	133 00	336.00	.1940-02	2335-02	2335-02	.9000	.6789-04	.8174-04	.5179-01	.3874	529.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF H PERSONIC TUNNEL

PAGE 2848

OH84B 60-0 OMS POD

(R4UX13)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -1.000    ELEVON = .0000  
 BOFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
101	2.984	7.990	35.02	-.9871	670.0	13.78	96.43	.6919-01	3.092	3846.	.1937-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
101	.4352-01	.2346-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
101	1525.0	133.00	336.00	.2780-02	.3341-02	.3741-02	9000	.1210-03	.1454-03	.9564-01	.7127	537 0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2849

OH84B 60-0 OMS POD

(R4UX13)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = -1.000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
135	3.683	8.000	35.07	-.9652	852 5	1352.	97 95	.8732-01	3.912	3881.	.2406-02	.7882-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
135	.4910-01	2109-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
135	1525.0	133.00	336.00	2991-02	3579-02	3579-02	.9000	.1468-03	1757-03	.1207	.9033	529.4

DATE 23 FEB 80

04848 MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2850

04848 60-0 OMS POD

(R4UX14)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
BDFLAP = .0000    SPDBR = .0000

\*\*\*TEST CONDITIONS\*\*\*

PUN NUMBER	RN/L 'FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
13	.5302	7.900	34 97	.2130-02	104.2	1240.	91.95	.1158-01	.5059	3714.	.3399-03	.7399-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
13	.1739-01	.5561-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
13	1525 0	133.00	336.00	.2731-02	.3307-02	.3307-02	.9000	.4751-04	.5751-04	.3385-01	.2535	527.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2851

OH84B 60-0 OMS POD

(R4UX14)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
BCFLAP = 0000    SPDSRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	P0 PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
60	2.004	7.980	34.98	7044-03	434.5	1300.	9+ 62	4523-01	2.016	3805.	1290-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
60	.3501-01	2868-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
60	1525.0	133.00	336.00	1993-02	.2394-02	.2394-02	.9000	.6977-04	.8382-04	5411-01	.4059	524.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2852

OH84B 60-0 OMS POD

(R4UX14)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35 00    BETA = .0000    ELEVON = .0000  
BDFLAP = .0000    SPCBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
79	3.047	7.990	35 01	-.6951-03	670.5	1310.	95.12	6924-01	3.094	3820.	.1965-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
79	4343-01	2326-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
79	1525 0	133.00	336.00	.2262-02	.2715-02	.2715-02	.9000	9822-04	.1179-03	.7707-01	.5779	525.0



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2853

OH84B 60-0 OMS POD

(R4UX14)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 35.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
132	3.694	8.000	35.03	.6883-03	854.1	1351.	97.87	.8749-01	3.919	3880.	.2413-02	.7876-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
132	.1914-01	.2106-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/T0	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
132	15°5.0	133.00	336.00	2549-02	.3049-02	.3049-02	.9000	.1253-03	.1499-03	1031	7721	527.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2854

CH84B 60-0 OMS POD

(R4UX15)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10 00    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
201	4945	7.900	39 95	-10 05	100.2	1266.	93.88	.1114-01	.4867	3752.	.3203-03	.7554-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
201	.1712-01	5741-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/T0	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
201	1525.0	133.00	336.00	.7603-02	9184-02	.9184-02	.9000	.1302-03	.1573-03	9571-01	.7157	530.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2855

OH84B 60-0 OMS POD

(R4UX15)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
188	1.010	7.940	39.95	-10.05	204.4	1253.	92.05	.2199-01	.9703	3734.	.6447-03	.7407-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	S <sup>2</sup> N NO REF(R) = 0175
188	2413-01	4042-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
188	1525.0	133.00	336.00	.5562-02	6712-02	.6712-02	.9000	.1342-03	.1620-03	.9813-01	.7371	521.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2856

OH84B 60-0 OMS POD

(R4UX15)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
170	1 999	7.980	39 98	-10.08	434 3	1302.	94.76	.4522-01	2 016	3808.	.1288-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
170	3501-01	.2872-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. P /SEC	TW DEG R
170	1525.0	133.00	336.00	.5857-02	.7041-02	.7041-02	.9000	.2051-03	.2465-03	.1588	1.189	527.4

DATE 23 FEB 80

OPB4B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2857

CH84B 60-0 OMS POD

(R4UX15)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -10.00    ELEVON = .0000  
BCFLAP = .0000    SPOBPK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
98	2.982	7.990	40.02	-10.11	669.7	1328	95.43	.6916-01	3.091	3846.	.1936-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
98	4351-01	.2347-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
98	1525.0	133.00	336.00	.5219-02	.6260-02	.6260-02	.9000	.2271-03	.2723-03	.1814	1.357	528.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2858

OH84B 60-0 CMS POD

(R4UX17)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
BDFLAP = .0000    SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
198	.4952	7.900	39.96	-3.985	99.19	1256	93.14	.1102-01	.4816	3737.	.3195-03	.7495-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
198	.1701-01	5744-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
198	1525.0	133.00	336.00	.2375-02	2868-02	2868-02	.9000	.4039-04	4878-04	.2948-01	.2210	525.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2859

OH84B 60-0 OMS POD

(R4UX17)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
185	.9852	7.940	39.97	-3.981	202.7	1267	93.08	.2180-01	.9622	3755.	.6323-03	.7490-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
185	2408-01	4087-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
185	1525.0	133.00	336.00	.2690-02	3241-02	.3241-02	.9000	6478-04	.7804-04	.4828-01	.3626	521.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2860

OH84B 60-0 CMS POD

(R4UX17)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
176	1.997	7.980	39.97	-3.939	436.5	1307.	95.13	4544-01	2.026	3815.	.1289-02	.7655-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
176	.3513-01	2871-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
176	1525.0	133.00	335.00	4242-02	.5095-02	5095-02	9000	.1490-03	.1790-03	.1163	.8714	526.2



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2861

OH84B 60-0 OMS POD

(R4UX17)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -4.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. P	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
97	2.987	7.990	40.01	-4.020	670.8	1328	96.43	.6927-01	3.096	3846.	.1939-02	.7760-07

PUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
97	.4354-01	2345-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG R
97	1525.0	133.00	336.00	4028-02	4831-02	4831-02	.9000	.1754-03	2103-03	.1491	1.049	528.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2862

OH84B 60-0 OMS POD

(R4UX18)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
195	.4938	7.900	39.96	-1.991	98.69	1254.	92.99	.1097-01	.4792	3735.	.3184-03	.7483-07

RUN NUMBER	H-REF BTU/ R FT2SEC	STN NO REF (R) = 0175
195	.1696-01	.5753-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
195	1525.0	133.00	336.00	.3389-02	.4092-02	.4092-02	.9000	.5748-04	.6941-04	.4192-01	.3144	524.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2863

OH84B 60-0 OMS POD

(R4UX18)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = 0000  
BCFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
182	1.011	7.940	39.97	-1.995	206.3	1260	92.56	.2219-01	.9793	3745	.6470-03	.7449-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
182	.2427-01	4037-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
182	1525.0	133.00	336.00	3912-02	4719-02	4719-02	.9000	.9495-04	1145-03	.6998-01	.5253	522.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2864

OH84B 60-0 OMS POD

(R4UX18)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
173	2.017	7.980	39.99	-2.004	436.3	1298.	94.47	.4542-01	2.025	3802.	.1298-02	.7602-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175
173	.3508-01	.2860-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
173	1525.0	133.00	336.00	.2790-02	.3359-02	.3359-02	.9000	9786-04	.1178-03	7497-01	.5602	531.6

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2865

0484B 60-0 OMS POD

(R4UX18)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -2.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
89	3.018	7.990	40.02	-2.030	669.3	1317.	95.63	.6912-01	3.089	3830	.1951-02	.7696-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
89	4343-01	.2336-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/T0	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
89	1525.0	133.00	336.00	3399-02	.4080-02	.4080-02	.9000	1476-03	1772-03	.1164	.8715	528.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2866

OH84B 60-0 OMS POD

(R4UX20)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
191	.5026	7.900	39.96	-.9984	99.61	1247.	92.47	.1107-01	.4836	3724	.3231-03	.7441-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
191	.1702-01	5707-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
191	1525.0	133.00	336.00	.2350-02	.2846-02	.2846-02	.9000	.4001-04	4844-04	2865-01	.2143	530.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2867

OH84B 60-0 OMS POD

(R4UX21)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
192	.5105	7.900	39.99	-1.007	101.0	1246	92.40	.1123-01	4906	3723.	.3281-03	.7435-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
192	1714-01	5663-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
192	1525.0	133.00	336.00	2290-02	2767-02	2767-02	.9000	3926-04	4743-04	.2837-01	.2129	523.0

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2868

0484B 60-0 OMS POD

(R4UX21)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
BDFLAP = 0000    SPDERK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
179	1.009	7.940	39.99	-1.007	205.6	1259.	92.49	2212-01	.9760	3743.	.6454-03	.7443-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
179	2422-01	.4042-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
179	1525.0	133.00	336.00	.3909-02	.4731-02	.4731-02	.9000	.9470-04	.1146-03	6863-01	.5123	533.9



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2869

OH84B 60-0 OMS POD

(R4UX21)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = -1.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
167	2.003	7.980	40.01	-1.009	434.6	1301	94.69	.4525-01	2.017	3807.	.1290-02	.7620-07

RUN NUMBER	HPEF BTU/R FT2SEC	STN NO REF(R) = 0175
167	3502-01	.2869-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
167	1525.0	133.00	336.00	.2623-02	3156-02	.3156-02	.9000	9185-04	.1105-03	.7077-01	5292	530.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2870

OH84B 60-0 OMS POD

(R4UX21)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40 00    BETA = -1.000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
85	3 028	7.990	40 08	-1.034	670.0	1315	95 49	.6919-01	3.092	3827.	.1956-02	.7684-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
85	.4344-01	.2333-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
85	1525.0	133 00	336 00	.3343-02	4015-02	.4015-02	.9000	.1452-03	.1744-03	.1142	.8550	528.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2871

OH84B 60-0 OMS POD

(R4UX22)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 0000    ELEVCN = 0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
16	5159	7.900	40.01	-3149-02	102.0	1245	92.32	.1134-01	4952	3721.	.3314-03	.7429-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0.75
16	.1722-01	5634-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDGT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
16	1525.0	133.00	336.00	2693-02	.3254-02	3254-02	.9000	.4637-04	.5605-04	.3344-01	.2510	523.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2872

OH84B 60-0 OMS POD

(R4UX22)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
32	1.002	7.940	40.01	-1.1050-02	205.9	1266.	93.00	.2215-01	.9775	3754.	.6428-03	.7484-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
32	2427-01	4053-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
32	1525.0	133.00	336.00	.4621-02	.5572-02	.5572-02	.9000	.1121-03	.1352-03	.8313-01	.6235	524.3

DATE 23 FEB 80

OH84B MODFL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2873

OH84B 60-0 CMS POD

(R4UX22)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
73	2.006	7.980	40.03	-1056-02	434.9	1300.	94.62	4527-01	2.018	3805.	.1291-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
73	3503-01	.2867-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H, HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDY DEG. R /SEC	TW DEG R
73	1525.0	133.00	336.00	3038-02	3650-02	.3650-02	.9000	.1064-03	.1279-03	.8245-01	.6183	524.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2874

OH84B 60-0 OMS POD

(R4UX22)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
82	3.020	7.990	40 06	-.1434-06	669 7	1317.	95 63	.6916-01	3.091	3830.	.1952-02	.7696-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
82	4344-01	2335-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
82	1525.0	133.00	336.00	3561-02	.4273-02	.4273-02	9000	.1547-03	.1856-03	.1223	.9161	526.4

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2875

OH84B 60-O OMS POD

(R4UX22)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 0000    SPD3RK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
145	3.684	8.000	40.10	-1.1083-02	853.6	1353.	98.02	.8744-01	3.917	3883.	.2408-02	.7888-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
145	4914-01	.2108-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
145	1525.0	133.00	336.00	3536-02	.4231-02	4231-02	.9000	1738-03	.2079-03	1432	1.071	528.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2876

OH84B 60-0 OMS POD

(R4UX25)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 1.000    ELEVON = .0000  
 BDFLAP = 0000    SPDRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
20	5050	7 900	40 03	1.041	100 6	1251.	92.77	.1118-01	.4882	3730.	.3252-03	.7465-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO PEF(R) = 0175
20	.1711-01	.5691-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
20	1525.0	133 00	336 00	.4421-02	.5339-02	.5339-02	.9000	7567-04	.9137-04	.5506-01	.4133	523.0



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2877

OH84B 60-0 QMS POD

(R4UX25)

QMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 1.000    ELEVON = .0000  
 BDFLAP = 0000    SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
35	1.011	7.940	40.05	1.018	204.7	1254	92.12	.2202-01	9718	3736	.6452-03	7413-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
35	.2416-01	.4041-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
35	1525.0	133.00	336.00	8305-02	.1003-01	.1003-01	.9000	2006.03	.2423-03	.1461	1.096	525.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2878

OH84B 60-0 OMS POD

(R4UX25)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 1.000    ELEVON = .0000  
SDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
70	2.009	7.980	40.07	1.025	435.0	1299.	94.54	.4529-01	2.019	3804.	.1293-02	.7608-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) =.0175
70	3503-01	.2865-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
70	1525.0	133.00	336.00	.2579-02	.3100-02	3100-02	9000	9035-04	.1035-03	.6988-01	.5239	525.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2879

OH84B 60-0 OMS POD

(R4UX26)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 2.000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
23	.5076	7.900	40.00	2.019	101.2	1252.	92.84	1125-01	.4913	3732.	.3270-03	.7471-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
23	.1717-01	.5676-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
23	1525 0	133.00	336 00	2991-02	3610-02	3610-02	9000	.5135-04	.6199-04	.3747-01	.2814	522.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2880

OH84B 60-0 OMS POD

(R4UX26)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 2.000    ELEVON = 0000  
 BDFLAP = 0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
38	1.003	7.940	40.02	2.013	203.6	1256.	92.27	.2190-01	.9666	3739	.6407-03	.7425-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175										
38	2410-01	.4056-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
38	1525.0	133.00	336.00	4631-02	.5589-02	.5589-02	.9000	1116-03	1347-03	.8171-01	.6131	523.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2881

OH84B 60-0 OMS POD

(R4UX26)

OMS POD

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 2.000 ELEVON = .0000  
BDFLAP = 0000 SPCBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
67	2.005	7.980	40.04	2.021	434.1	1299	94.54	.4519-01	2.014	3804.	.1290-02	.7608-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
67	3499-01	2868-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
67	1525.0	133.00	336.00	3699-02	.4447-02	4447-02	.9000	.1294-03	1556-03	9996-01	.7490	526.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2882

OH84B 60-0 OMS POD

(R4UX27)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 4.000    ELEVON = .0000  
BDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
26	.5059	7.900	40.02	4.008	100.6	1250.	92.69	.1118-01	.4885	3729	.3256-03	.7459-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
26	.1712-01	5687-01

\*\*\*TEST DATA\*\*\*

PUN NUMBER	X0	Y0	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
26	1525.0	133.00	336 00	.4913-02	.5932-02	5932-02	.9000	.8410-04	1015-03	.6117-01	.4593	522.3

DATE 23 FEB 80

OH-84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2883

OH-84B 60-0 OMS POD

(R4UX27)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 4.000    ELEVON = .0000  
BDFLAP = 0000    SPDRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
41	1.011	7.940	40.00	4.013	204.3	1252.	91.98	2198-01	.9699	3733.	.6450-03	.7401-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
41	.2413-01	.4041-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
41	1525.0	133.00	336.00	5833-02	.7045-02	.7045-02	.9000	.1407-03	.1700-03	1024	.7684	523.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2884

OH84B 60-0 OMS POD

(R4UX27)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 4.000    ELEVON = .0000  
 BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
63	1.994	7.980	39.99	4.049	433.3	1302.	94.76	.4511-01	2.011	3808	.1285-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
63	.3497-01	.2875-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
63	1525.0	133.00	336.00	4184-02	5028-02	.5028-02	.9000	.1463-03	1758-03	.1135	.8507	526.0



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2885

OH84B 60-0 OMS POD

(R4UX28)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 10.00    ELEVON = .0000  
EDFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
29	.5059	7 900	40.08	9 969	100 5	1249	92 62	.1117-01	.4879	3727.	.3255-03	.7453-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
29	1710-01	.5687-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
29	1525 0	133.00	336 00	.7728-03	9352-03	.9352-03	.9000	.1322-04	.1600-04	9503-02	.7108-01	529.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2886

OH84B 60-0 OMS POD

(R4UX28)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 10.00    ELEVON = .0000  
BD FLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
44	1.020	7.940	39.95	10.01	207.3	1257.	92.34	2230-01	.9842	3740	.6518-03	.7431-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
44	.2432-01	.4022-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	XO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
44	1525.0	133.00	336.00	.1817-02	.2192-02	.2192-02	.9000	.4419-04	.5332-04	.3245-01	.2437	522.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2887

OH84B 60-0 OMS POD

(R4UX28)

OMS POD

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 10.00    ELEVON = .0000  
BDFLAP = 0000    SPCBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
57	1.996	7.980	40.01	10.01	434.1	1303.	94.84	.4519-01	2.014	3810.	.1286-02	.7631-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
57	3501-01	2874-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	X0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
57	1525.0	133.00	336.00	2553-02	.3066-02	.3066-02	.9000	.8937-04	.1073-03	.6961-01	.5222	523.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2888

OH84B 60-0 SSME NOZZLE

(R4UY29)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = -12.50 SPCBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
717	5091	7.900	39.99	3469-02	100.3	1242.	92.10	1115-01	.4869	3717	.3266-03	.7411-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
717	.1707-01	.5674-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
717	.88000-01	315.00	432.00	.2283-02	.2758-02	.2758-02	9000	.3897-04	.4708-04	.2810-01	2192	520.7
717	.88000-01	00000	433.00	.1148-01	.1387-01	.1387-01	9000	.1959-03	.2368-03	.1411	1.067	521.7
717	.88000-01	25.000	434.00	.4868-01	.5888-01	.5888-01	9000	.8309-03	.1005-02	.5953	4.698	525.2
717	.88000-01	45.000	435.00	.6758-01	.8179-01	.8179-01	.9000	.1154-02	.1396-02	.8245	6.238	527.0
717	.88000-01	65.000	436.00	.1985-01	.2400-01	.2400-01	9000	.3389-03	.4096-03	.2435	1.840	523.0
717	.88000-01	90.000	437.00	.4339-02	.5242-02	.5242-02	9000	.7406-04	.8949-04	.5333-01	4.116	521.5
717	.88000-01	135.00	438.00	.9797-03	.1183-02	.1.83-02	9000	.1672-04	.2020-04	.2206-01	.8855-01	520.6
717	.17500	00000	439.00	.9142-02	.1105-01	.1105-01	9000	.1560-03	.1886-03	.1123	.8461	522.0
717	.17500	25.000	440.00	.2017-01	.2438-01	.2438-01	9000	.3442-03	.4161-03	.2474	1.955	523.0
717	.17500	45.000	441.00	.5004-01	.6054-01	.6054-01	9000	.8541-03	.1033-02	.6112	4.706	526.1
717	.17500	65.000	442.00	.1754-01	.2121-01	.2121-01	.9000	.2994-03	.3620-03	.2151	1.636	523.3
717	.17500	90.000	443.00	.4019-02	.4856-02	.4856-02	.9000	.6860-04	.8290-04	.4941-01	.3866	521.5
717	.27000	.00000	444.00	.6700-02	.8095-02	.8095-02	9000	.1144-03	.1382-03	.3236-01	.6774	521.5
717	.27000	25.000	445.00	.2561-01	.3096-01	.3096-01	9000	.4372-03	.5285-03	.3142	2.440	523.0
717	.27000	45.000	446.00	.4685-01	.5666-01	.5666-01	.9000	.7997-03	.9673-03	.5730	4.604	525.1
717	.27000	65.000	447.00	.1319-01	.1593-01	.1593-01	9000	.2252-03	.2722-03	.1620	1.313	522.4
717	.27000	90.000	448.00	.3495-02	.4222-02	.4222-02	9000	.5965-04	.7207-04	.4298-01	.3436	521.1
717	.43800	00000	449.00	.4687-02	.5661-02	.5661-02	9000	.8000-04	.9664-04	.5771-01	.4519	520.3
717	.43800	25.000	450.00	.2099-01	.2536-01	.2536-01	9000	.3582-03	.4329-03	.2579	1.997	521.7
717	.43800	45.000	451.00	.4098-01	.4954-01	.4954-01	9000	.6995-03	.8456-03	.5025	3.956	523.2
717	.43800	65.000	452.00	.1208-01	.1460-01	.1460-01	9000	.2062-03	.2492-03	.1483	1.133	522.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2889

OH84B 60-0 SSME NOZZLE

(R4UY29)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
717	43800	90 000	453 00	3064-02	3702-02	.3702-02	9000	.5230-04	6319-04	.3767-01	.2918	521 4

## OH84B 60-0 SSME NOZZLE

(R4UY29)

## SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = -12.50 SPDGRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
715	1.013	7.940	39.99	.3469-02	207.7	1254.	92.66	.2234-01	.9860	3751.	.6495-03	.7472-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
715	2436-01	.4031-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
715	.88000-01	315.00	432.00	.3331-02	.4013-02	.4013-02	.9000	.8115-04	.9777-04	.6032-01	.4707	520.3
715	.88000-01	00000	433.00	.1487-01	.1791-01	.1791-01	.9000	.3622-03	.4365-03	.2690	2.035	520.9
715	.88000-01	25.000	434.00	.6567-01	.7929-01	.7929-01	.9000	.1600-02	.1932-02	1.177	9.278	527.9
715	.88000-01	45.000	435.00	.7983-01	.9642-01	.9642-01	.9000	.19.5-02	.2349-02	1.429	10.80	529.0
715	.88000-01	65.000	436.00	.2116-01	.2550-01	.2550-01	.9000	.5155-03	.6214-03	.3824	2.891	521.9
715	.88000-01	90.000	437.00	.4482-02	.5398-02	.5398-02	.9000	.1092-03	.1315-03	.8127-01	.6279	519.4
715	.88000-01	135.00	438.00	.1431-02	.1723-02	.1723-02	.9000	.3487-04	.4199-04	.2601-01	.1912	518.0
715	.17500	.00000	439.00	.1136-01	.1369-01	.1369-01	.9000	.2767-03	.3335-03	.2054	1.548	521.5
715	.17500	25.000	440.00	.2618-01	.3157-01	.3157-01	.9000	.6379-03	.7693-03	.4719	3.727	523.9
715	.17500	45.000	441.00	.6257-01	.7555-01	.7555-01	.9000	.1525-02	.1841-02	1.122	8.628	527.9
715	.17500	65.000	442.00	.1824-01	.2199-01	.2199-01	.9000	.4445-03	.5358-03	.3296	2.508	522.2
715	.17500	90.000	443.00	.4549-02	.5479-02	.5479-02	.9000	.1108-03	.1335-03	.8249-01	.6461	519.4
715	.27000	00000	444.00	.7909-02	.9530-02	.9530-02	.9000	.1927-03	.2322-03	.1432	1.178	520.7
715	.27000	25.000	445.00	.3228-01	.3893-01	.3893-01	.9000	.7865-03	.9485-03	.5821	4.519	523.6
715	.27000	45.000	446.00	.5285-01	.6381-01	.6381-01	.9000	.1288-02	.1555-02	.9489	7.616	526.9
715	.27000	65.000	447.00	.1324-01	.1596-01	.1596-01	.9000	.3226-03	.3889-03	.2394	1.941	521.6
715	.27000	90.000	448.00	.3606-02	.4343-02	.4343-02	.9000	.8785-04	.1058-03	.6542-01	.5234	519.1
715	.43800	00000	449.00	.6447-02	.7768-02	.7768-02	.9000	.1571-03	.1893-03	.1168	.9141	520.4
715	.43800	25.000	450.00	.2925-01	.3527-01	.3527-01	.9000	.7128-03	.8594-03	.5278	4.084	523.1
715	.43800	45.000	451.00	.3910-01	.4715-01	.4715-01	.9000	.9526-03	.1149-02	.7045	5.544	524.1
715	.43800	65.000	452.00	.1095-01	.1320-01	.1320-01	.9000	.2668-03	.3215-03	.1980	1.513	521.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2891

OH84B 60-0 SSME NOZZLE

(R4UY29)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HPEF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
715	43800	90.000	453.00	2866-02	3452-02	3452-02	9000	.6983-04	.8411-04	.5197-01	.4029	519.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2892

OH84B 60-0 SSME NOZZLE

(R4UY29)

, SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15 00  
 SDFLAP = -12 50 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
709	2 011	7 980	40 04	1046-01	432 9	1294.	94 18	4507-01	2.009	3796.	.1292-02	.7579-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
709	3492-01	.2865-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG R
709	.88000-01	315.00	432 00	4566-02	5484-02	.5484-02	.9000	1594-03	1915-03	1232	.9611	520.9
709	.88000-01	.00000	433 00	1875-01	2254-01	.2254-01	.9000	6549-03	7871-03	5046	3.813	523.2
709	.88000-01	25 000	434 00	.6428-01	7748-01	.7748-01	.9000	2245-02	2706-02	1 705	13 40	534 0
709	.88000-01	45 000	435 00	1335	1616	1616	.9000	4663-02	5642-02	3 477	26 03	548.1
709	.88000-01	65 000	436 00	3308-01	.3980-01	3980-01	.9000	1155-02	1390-02	8852	6 674	527 4
709	.88000-01	90 000	437 00	.6278-02	7542-02	7542-02	.9000	2192-03	2634-03	.1692	1.306	521 9
709	.88000-01	135 00	438 00	1688-02	2026-02	2026-02	.9000	5893-04	7076-04	4560-01	.3350	519 8
709	.17500	00000	439 00	1383-01	1662-01	1662-01	.9000	4830-03	.5805-03	.3721	2 801	523 4
709	.17500	25 000	440 00	.2470-01	2971-01	2971-01	.9000	8626-03	1037-02	6620	5.222	526 2
709	.17500	45 000	441 00	1073	1296	1296	.9000	3746-02	4527-02	2 811	21 45	543 3
709	.17500	65 000	442 00	2894-01	3482-01	3482-01	.9000	.1010-02	1216-02	7737	5.871	527 9
709	.17500	90 000	443 00	6078-02	7302-02	7302-02	.9000	2123-03	2550-03	1638	1 282	521 9
709	.27000	00000	444 00	1005-01	.1208-01	.1208-01	.9000	3511-03	4218-03	.2710	2.229	521 8
709	.27000	25 000	445 00	3532-01	4248-01	4248-01	.9000	1233-02	1483-02	9462	7 334	526 5
709	.27000	45 000	446 00	9358-01	1129	.1129	.9000	3268-02	3944-02	2 468	19 69	538.5
709	.27000	65 000	447 00	1964-01	.2361-01	2361-01	.9000	6857-03	8246-03	.5267	4.261	525.5
709	.27000	90 000	448 00	5019-02	.6029-02	.6029-02	.9000	1753-03	.2105-03	.1354	1.082	521.3
709	.43800	00000	449 00	.7907-02	9497-02	.9497-02	.9000	2761-03	3316-03	.2134	1 670	520.9
709	.43800	25 000	450 00	.4108-01	4942-01	.4942-01	.9000	.1434-02	.1726-02	1 099	8 489	527 3
709	.43800	45 000	451 00	6418-01	7730-01	.7730-01	.9000	2241-02	2699-02	1 708	13 39	531.6
709	.43800	65 000	452 00	1618-01	1945-01	1945-01	.9000	5651-03	.6794-03	4345	3 314	524 7



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2893

OH84B 60-0 SSME NOZZLE

(R4UY29)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
709	.43800	90 000	453.00	4971-02	5972-02	5972-02	.9000	.1736-03	.2086-03	.1339	1 037	522.2

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2894

0484B 60-0 SSME NOZZLE

(R4UY29)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -15.00  
 BDFLAP = -12.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	T <sub>O</sub> DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
707	3.005	7.990	40.05	.6989-02	671.7	1324	96.14	6937-01	3.100	3841.	.1947-02	.7736-07

RUN NUMBER	PREF BTU/ R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
707	4355-01	.2339-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU' FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
707	.88000-01	315.00	432.00	.4448-02	.5334-02	.5334-02	9000	.1937-03	2323-03	1543	1.200	527.0
707	.88000-01	.00000	433.00	.2202-01	.2642-01	.2642-01	.9000	.9588-03	1151-02	.7613	5.733	529.7
707	.88000-01	25.000	434.00	.8170-01	.9845-01	.9845-01	.9000	.3553-02	4288-02	2.768	21.62	545.7
707	.88000-01	45.000	435.00	.1325	.1602	.1602	.9000	.5769-02	.6978-02	4.405	32.78	560.0
707	.88000-01	65.000	436.00	.5136-01	.6174-01	.6174-01	.9000	.2237-02	2699-02	1.762	13.22	536.2
707	.88000-01	90.000	437.00	.9046-02	1085-01	1085-01	.9000	.3940-03	4725-03	.3138	2.415	527.1
707	.88000-01	135.00	438.00	.1912-02	.2291-02	.2291-02	.9000	.8325-04	9977-04	.6654-01	.4878	524.3
707	.17500	.00000	439.00	.1645-01	.1974-01	.1974-01	.9000	.7164-03	8599-03	.5683	4.264	530.4
707	.17500	25.000	440.00	.3311-01	.3978-01	.3978-01	.9000	.1442-02	1733-02	1.139	8.944	534.2
707	.17500	45.000	441.00	.1066	.1287	.1287	.9000	.4643-02	5606-02	3.575	27.15	553.6
707	.17500	65.000	442.00	.4408-01	.5300-01	.5300-01	.9000	.1920-02	2308-02	1.509	11.40	537.5
707	.17500	90.000	443.00	.8256-02	.9901-02	.9901-02	.9000	.3595-03	4312-03	.2864	2.234	527.1
707	.27000	.00000	444.00	.1114-01	.1367-01	.1367-01	.9000	.4963-03	5954-03	3946	3.233	528.6
707	.27000	25.000	445.00	.4528-01	.5442-01	.5442-01	.9000	.1972-02	2370-02	1.554	11.99	535.7
707	.27000	45.000	446.00	.9993-01	.1205	.1205	.9000	.4352-02	5249-02	3.371	26.75	549.1
707	.27000	65.000	447.00	.3092-01	.3714-01	.3714-01	.9000	.346-02	1617-02	1.064	8.572	533.5
707	.27000	90.000	448.00	.6751-02	.8095-02	.8095-02	.9000	.940-03	3525-03	2343	1.867	526.7
707	.43800	.00000	449.00	.8006-02	.9502-02	.9502-02	.9000	.5487-03	4182-03	2777	2.167	527.1
707	.43800	25.000	450.00	.5572-01	.6701-01	.6701-01	.9000	.2427-02	2918-02	1.906	14.63	538.3
707	.43800	45.000	451.00	.7728-01	.9301-01	.9301-01	.9000	.3366-02	4050-02	2.635	20.56	540.7
707	.43800	65.000	452.00	.2274-01	.2731-01	.2731-01	.9000	.9904-03	1189.02	7843	5.959	531.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2895

OH84B 60-0 SSME NOZZLE

(R4UY29)

RUN NUMBER	ZO MS	PHI	T/C NO -	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
707	43800	90.000	453.00	5494-02	.6589-02	.5589-02	9000	2393-03	.2869-03	.1907	1 473	526 8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2896

OH84B 60-0 SSME NOZZLE

(R4UY30)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40 00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = 0000 SPDRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
719	.5000	7.900	39.98	.3465-02	100.3	1257.	93 21	.1115-01	.4869	3739.	.3227-03	.7501-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
719	.1711-01	.5715-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
719	.88000-01	315 00	432.00	2350-02	.2833-02	.2833-02	.9000	.4020-04	.4845-04	2967-01	2317	518.7
719	.88000-01	00000	433 00	9612-02	.1159-01	.1159-01	.9000	.1644-03	.1982-03	1213	.9183	519.0
719	.88000-01	25.000	434 00	6228-01	.7518-01	.7518-01	.9000	.1055-02	.1286-02	7804	6.163	524 1
719	.88000-01	45 000	435 00	.1097	.1325	.1325	.9000	.1876-02	.2267-02	1.369	10 36	526.8
719	.88000-01	65 000	436 00	3320-01	.4003-01	.4003-01	.9000	.5679-03	.6848-03	.4182	3 164	520.3
719	.88000-01	90 000	437 00	6821-02	.8220-02	.8220-02	.9000	.1167-03	.1406-03	.8615-01	.6660	518 3
719	.88000-01	135.00	438 00	2041-02	.2458-02	.2458-02	.9000	.3490-04	.4205-04	.2382-01	.1899	517.0
719	.17500	00000	439 00	.8451-02	.1019-01	.1019-01	.9000	.1446-03	.1743-03	.1065	8037	519.7
719	.17500	25 000	440 00	2437-01	.2939-01	.2939-01	.9000	.4168-03	.5027-03	3066	2.425	521.0
719	.17500	45 000	441 00	7689-01	.9286-01	.9286-01	.9000	.1315-02	.1588-02	9605	7 395	526 3
719	.17500	65 000	442 00	.2894-01	.3489-01	.3489-01	.9000	.4949-03	.5969-03	.3642	2.773	520 9
719	.17500	90.000	443 00	.6352-02	.7655-02	.7655-02	.9000	.1087-03	.1309-03	.8024-01	.6289	518 2
719	.27000	.00000	444 00	.6312-02	.7608-02	.7608-02	.9000	.1080-03	.1301-03	.7962-01	.6555	519 3
719	.27000	25 000	445 00	.3156-01	.3806-01	.3806-01	.9000	.5399-03	.6511-03	3971	3.086	521 2
719	.27000	45 000	446 00	6769-01	.8171-01	.8171-01	.9000	.1158-02	.1398-02	8478	6.814	524.4
719	.27000	65 000	447 00	1920-01	.2315-01	.2315-01	.9000	.3284-03	.3960-03	.2420	1.964	519 7
719	.27000	90 000	448.00	5579-02	.6722-02	.6722-02	.9000	.9542-04	.1150-03	.7050-01	.5644	517 9
719	.43800	00000	449 00	.5215-02	.6285-02	.6285-02	.9000	.8920-04	.1075-03	.6581-01	.5156	518 9
719	.43800	25 000	450 00	2203-01	.2656-01	.2656-01	.9000	.3768-03	.4543-03	.2775	2 151	520.0
719	.43800	45 000	451 00	.5575-01	.6726-01	.6726-01	.9000	.9536-03	.1151-02	.7000	5 512	522 6
719	.43800	65.000	452 00	1848-01	.2229-01	.2229-01	.9000	.3162-03	.3812-03	.2328	1 780	520.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2897

OH84B 60-0 SSME NOZZLE

(R4UY30)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
719	.43800	90.000	453.00	4770-02	.5749-02	.5749-02	.9000	.8160-04	.9834-04	.6025-01	.4673	518.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2898

OH84B 60-0 SSME NOZZLE

(R4UY30)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
713	9943	7.940	39 99	6941-02	204 3	1265.	93 00	2198-01	9699	3754	6378-03	.7484-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
713	.2417-01	4069-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
713	.88000-01	315.00	432 00	2951-02	3554-02	.3554-02	.9000	7134-04	8591-04	.5323-01	.4155	519.5
713	.88000-01	00000	433.00	1104-01	1329-01	.1329-01	.9000	.2667-03	3213-03	.1988	1.504	520.3
713	.88000-01	25.000	434 00	6339-01	.7652-01	.7652-01	.9000	1532-02	1849-02	1 131	8.913	527 7
713	.88000-01	45 000	435 00	8166-01	9863-01	.9863-01	.9000	1974-02	2384-02	1.453	10 98	529.8
713	.88000-01	65 000	436 00	2086-01	2514-01	.2514-01	9000	5042-03	.6077-03	.3747	2.832	522 5
713	.88000-01	90 000	437 00	4815-02	5800-02	.5800-02	.9000	1164-03	.1402-03	8673-01	.6697	520.4
713	.88000-01	135 00	438 00	1164-02	1401-02	.1401-02	9000	2812-04	.3386-04	.2101-01	.1544	518.8
713	.17500	00000	439 00	9390-02	1131-01	.1131-01	9000	2270-03	2734-03	1.090	1 274	521.0
713	.17500	25 000	440 00	2440-01	2942-01	.2942-01	9000	5697-03	7110-03	4377	3 457	523 6
713	.17500	45 000	441 00	6354-01	7671-01	.7671-01	9000	1535-02	1854-02	1 132	8 706	528 5
713	.17500	65 000	442 00	1786-01	2153-01	.2153-01	9000	.4317-03	.5203-03	3206	2 439	522 9
713	.17500	90 000	443 00	4481-02	5398-02	.5398-02	.9000	1083-03	1305-03	.8072-01	6320	520 4
713	.27000	00000	444 00	8011-02	.9651-02	.9651-02	.9000	1935-03	.2333-03	.1442	1.186	520 9
713	.27000	25.000	445.00	3090-01	3725-01	.3725-01	9000	.7468-03	9003-03	5543	4 303	523 4
713	.27000	45 000	446 00	.5171-01	6241-01	.6241-01	9000	.1250-02	1509-02	.9231	7 408	527 2
713	.27000	65 000	447.00	.1354-01	1632-01	.1632-01	.9000	.3273-03	3944-03	2433	1.972	522 2
713	.27000	90.000	448 00	.4023-02	.4845-02	.4845-02	9000	.9723-04	.1171-03	.7251-01	5799	520 0
713	.43800	00000	449.00	.6987-02	.8415-02	.8415-02	9000	1689-03	.2034-03	.1259	9862	519 9
713	.43800	25 000	450 00	3318-01	4000-01	.4000-01	9000	8020-03	.9668-03	.5955	4.607	523 2
713	.43800	45 000	451 00	.3659-01	4412-01	.4412-01	.9000	8845-03	.1066-02	.6564	5.167	523 6
713	.43800	65 000	452.00	.1164-01	.1403-01	.1403-01	9000	.2813-03	.3390-03	2093	1.599	521 7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2899

OH84B 60-0 SSME NOZZLE

(R4UY30)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
713	.43800	90.000	453.00	.3008-02	.3623-02	.3623-02	.9000	.7270-04	.8757-04	.5420-01	.4200	520.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2900

OH84B 60-0 SSME NOZZLE

(R4UY30)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = .0000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
711	1.999	7.980	40.06	1048-01	436.8	1307.	95.13	.4548-01	2.027	3815.	.1290-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
711	.3514-01	.2870-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
711	88000-01	315.00	432.00	3029-02	3635-02	.3635-02	9000	.1064-03	1277-03	8350-01	.6509	522.2
711	88000-01	00000	433.00	.9149-02	1098-01	1098-01	.9000	.3215-03	3858-03	.2520	1.904	523.0
711	88000-01	25.000	434.00	.5421-01	.6522-01	.6522-01	9000	.1905-02	2292-02	1.474	11.59	532.9
711	88000-01	45.000	435.00	.1228	1483	.1483	9000	.4314-02	5210-02	3.276	24.53	547.3
711	88000-01	65.000	436.00	3360-01	4037-01	.4037-01	9000	1181-02	1419-02	9190	6.925	528.3
711	88000-01	90.000	437.00	7233-02	8679-02	8679-02	9000	2542-03	.3050-03	1994	1.538	522.2
711	88000-01	135.00	438.00	.1971-02	2364-02	2364-02	9000	6927-04	8306-04	.5450-01	4004	519.8
711	.17500	.00000	439.00	7179-02	8616-02	8616-02	.9000	2523-03	3028-03	1977	1.488	523.2
711	.17500	25.000	440.00	1703-01	2045-01	2045-01	.9000	5994-03	7187-03	4675	3.689	525.5
711	.17500	45.000	441.00	9747-01	1176	1176	9000	3425-02	4132-02	2.616	19.97	543.0
711	.17500	65.000	442.00	2902-01	3488-01	3488-01	.9000	1020-02	1226-02	7935	6.019	528.6
711	.17500	90.000	443.00	6537-02	7843-02	7843-02	9000	2297-03	2756-03	1802	1.410	522.1
711	.27000	00000	444.00	6375-02	7650-02	7650-02	.9000	2240-03	2688-03	1756	1.443	522.8
711	.27000	25.000	445.00	3373-01	4053-01	4053-01	.9000	1185-02	.1424-02	9225	7.144	528.3
711	.27000	45.000	446.00	8087-01	9742-01	9742-01	.9000	2842-02	.3423-02	2.186	17.45	537.6
711	.27000	65.000	447.00	.1950-01	.2342-01	2342-01	.9000	.6851-03	8228-03	5348	4.325	526.0
711	.27000	90.000	448.00	5232-02	6277-02	6277-02	.9000	1839-03	.2206-03	1444	1.154	521.4
711	.43800	00000	449.00	7234-02	8680-02	8680-02	9000	2542-03	.3050-03	1993	1.558	522.6
711	.43800	25.000	450.00	4385-01	5272-01	.5272-01	.9000	1541-02	1852-02	1.197	9.229	529.9
711	.43800	45.000	451.00	.4664-01	5607-01	5607-01	.9000	1639-02	1970-02	1.273	9.986	529.9
711	.43800	65.000	452.00	.1395-01	1676-01	.1676-01	.9000	4904-03	5888-03	3833	2.922	525.1



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2901

OH84B 60-0 SSME NOZZLE

(R4UY30)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
711	.43800	90 000	453 00	4471-02	5365-02	.5365-02	.9000	1571-03	1885-03	.1232	.9539	522.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2902

OH84B 60-0 SSME NOZZLE

(R4UY30)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
705	3 029	7 990	40.07	3498-02	670.2	1315.	95 49	.6921-01	3 093	3827.	.1956-02	.7684-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
705	.4345-01	.2332-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF P=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
705	.88000-01	315 00	432 00	3311-02	.3978-02	.3978-02	.9000	.1439-03	.1728-03	.1128	.8757	530.5
705	.88000-01	00000	433 00	8950-02	.1075-01	.1075-01	.9000	.3689-03	.4673-03	.3047	2.292	531.2
705	.88000-01	25 000	434 00	6996-01	.8440-01	.8440-01	.9000	.3040-02	.3667-02	2 335	18.23	546.5
705	.88000-01	45 000	435 00	1197	.1449	.1449	.9000	.5200-02	.6297-02	3 924	29.20	560.1
705	.88000-01	65 000	436 00	5956-01	.7177-01	.7177-01	.9000	.2568-02	.3119-02	1.998	14.95	542.4
705	.88000-01	90 000	437 00	1111-01	.1336-01	.1335-01	.9000	.4828-03	.5804-03	.3773	2.894	533.2
705	.88000-01	135 00	438 00	1684-02	.2023-02	.2023-02	.9000	.7316-04	.8788-04	.5740-01	.4196	530.0
705	.17500	00000	439 00	.7613-02	.9150-02	.9150-02	.9000	.3308-03	.3976-03	.2589	1.941	531.9
705	.17500	25 000	440 00	.2046-01	.2461-01	.2461-01	.9000	.8888-03	.1069-02	.6927	5.438	535.4
705	.17500	45 000	441 00	.9625-01	.1164	.1164	.9000	.4182-02	.5057-02	3 178	24.12	554.7
705	.17500	65 000	442 00	.5241-01	.6319-01	.6319-01	.9000	.2277-02	.2746-02	1.755	13.20	544.2
705	.17500	90 000	443 00	.1042-01	.1253-01	.1253-01	.9000	.4529-03	.5445-03	.3540	2.753	533.1
705	.27000	00000	444 00	.6706-02	.8059-02	.8059-02	.9000	.2914-03	.3502-03	.2282	1.868	531.4
705	.27000	25 000	445 00	.3805-01	.4581-01	.4581-01	.9000	.1653-02	.1990-02	1 284	9.894	538.1
705	.27000	45 000	446 00	.9229-01	.1115	.1115	.9000	.4010-02	.4844-02	3 061	24.26	551.3
705	.27000	65 000	447 00	.3925-01	.4727-01	.4727-01	.9000	.1705-02	.2054-02	1.321	10.61	540.1
705	.27000	90 000	448 00	.7877-02	.9467-02	.9467-02	.9000	.3422-03	.4113-03	.2679	2.129	531.9
705	.43800	00000	449 00	.9265-02	.1113-01	.1113-01	.9000	.4025-03	.4837-03	.3155	2.457	530.9
705	.43800	25 000	450 00	.4874-01	.5871-01	.5871-01	.9000	.2118-02	.2551-02	1 640	12.58	540.4
705	.43800	45 000	451 00	.7596-01	.9160-01	.9160-01	.9000	.3300-02	.3980-02	2.541	19.79	544.6
705	.43800	65 000	452 00	.2911-01	.3504-01	.3504-01	.9000	.1265-02	.1522-02	.9839	7.457	536.9

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2903

OH84B 60-O SSME NOZZLE

(R4UY30)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
705	43800	90.000	453.00	.6172-02	7418-02	7418-02	9000	2682-03	3223-03	.2098	1.616	532.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2904

OH84B 60-0 SSME NOZZLE

(R4UY31)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = -12.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
725	4997	7.900	39.98	- 1733-01	100 5	1259.	93.36	.1117-01	.4878	3742.	.3228-03	.7513-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
725	.1713-01	.5716-01

## \*\*\*TEST DATA\*\*\*

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
725	88000-01	315.00	432 00	2651-02	3201-02	.3201-02	9000	4539-04	5481-04	.3324-01	2586	526 4
725	.88000-01	00000	433 00	1383-01	.1670-01	.1670-01	.9000	2369-03	2861-03	.1735	1 309	526.2
725	.88000-01	25 000	434.00	.5928-01	.7167-01	.7167-01	.9000	.1015-02	1227-02	.7396	5.822	530.2
725	88000-01	45 000	435.00	6623-01	.8007-01	8007-01	.9000	.1134-02	1371-02	8257	6 236	530.6
725	88000-01	65.000	436 00	.2120-01	2560-01	.2560-01	9000	3631-03	4384-03	.2660	2 006	526 1
725	88000-01	90 000	437.00	5499-02	6639-02	6639-02	.9000	9417-04	1137-03	.6905-01	.5318	525 5
725	88000-01	135 00	438 00	2688-02	.3245-02	.3245-02	.9000	.4603-04	.5557 04	3373-01	.2471	525.8
725	.17500	00000	439.00	1088-01	1314-01	.1314-01	.9000	1864-03	2251-03	1365	1.026	526 2
725	17500	25 000	440 00	2549-01	.3079-01	3079-01	9000	4365-03	5273-03	3192	2 516	527.5
725	17500	45 000	441 00	4814-01	.5819-01	.5819-01	9000	.8245-03	9965-03	6012	4 621	529.5
725	17500	65.000	442 00	2043-01	2468-01	2469-01	9000	3499-03	.4226-03	2560	1 943	527.1
725	17500	90 000	443.00	.5235-02	6320-02	6320-02	9000	.8965-04	1082-03	.6574-01	.5134	525 4
725	27000	00000	444 00	.8723-02	.1053-01	1053-01	.9000	.1494-03	1804-03	1094	.8978	526 2
725	27000	25 000	445 00	2644-01	.3193-01	3193-01	.9000	4527-03	5468-03	.3313	2.568	526 8
725	27000	45 000	446 00	.5019-01	.6065-01	6065-01	9000	8596-03	.1039-02	6272	5.029	529 0
725	27000	65 000	447 00	1545-01	.1865-01	.1865-01	9000	.2645-03	.3194-03	.1937	1.567	526 2
725	.27000	90 000	448 00	4659-02	5623-02	.5623-02	9000	.7977-04	.9629-04	.5851-01	.4667	525 1
725	43800	.00000	449.00	.6223-02	.7512-02	.7512-02	.9000	.1066-03	.1286-03	7816-01	6104	525.2
725	43800	25 000	450 00	1783-01	2153-01	.2153-01	.9000	.3053-03	.3686-03	.2237	1 728	526.0
725	.43800	45.000	451 00	.5471-01	.6611-01	6611-01	.9000	.9370-03	1132-02	.6839	5.369	528 7
725	.43800	65.000	452.00	1863-01	2250-01	.2250-01	.9000	.3190-03	.3853-03	.2336	1.780	526 6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2905

OH84B 60-0 SSME NOZZLE

(R4UY31)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HPEF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
725	.43800	90.000	453 00	.3519-02	.4248-02	.4248-02	.9000	.6027-04	.7276-04	.4420-01	.3417	525.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2906

OH84B 60-0 SSME NOZZLE

(R4UY31)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = -12 50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
739	9893	7 940	39.98	- 2427-01	204.0	1269	93 22	.2194-01	.9684	3758.	.6353-03	.7502-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
739	.2416-01	.4077-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF P=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
739	.88000-01	315.00	432 00	2286-02	2759-02	.2759-02	9000	5523-04	6668-04	4083-01	.3171	529.4
739	.88000-01	.00000	433.00	1468-01	.1773-01	1773-01	9000	.3546-03	4283-03	2616	1.969	531.0
739	.88000-01	25 000	434.00	4564-01	5520-01	.5520-01	.9000	1103-02	1334-02	8079	6.341	536.1
739	.88000-01	45 000	435 00	.7323-01	.8860-01	.8860-01	9000	1769-02	2141-02	1.293	9.732	537.7
739	.88000-01	65 000	436 00	1584-01	1913-01	.1913-01	9000	3827-03	4622-03	2822	2.123	531.3
739	.88000-01	90 000	437 00	.3612-02	.4361-02	4361-02	9000	8728-04	1054-03	.6449-01	.4956	529.8
739	.88000-01	135.00	438 00	1242-02	.1499-02	1499-02	9000	.3000-04	3621-04	2219-01	.1623	528.9
739	17500	00000	439 00	1070-01	1293-01	1293-01	.9000	.2586-03	3124-03	.1908	1.431	531.0
739	17500	25 000	440 00	1999-01	.2415-01	2415-01	9000	4829-03	.5835-03	.3555	2.796	532.5
739	17500	45 000	441 00	5482-01	.6633-01	6633-01	9000	1325-02	.1603-02	9681	7.409	537.8
739	.17500	65 000	442 00	1519-01	1835-01	1835-01	9000	3669-03	.4433-03	2702	2.046	532.2
739	17500	90 000	443 00	.3338-02	.4031-02	4031-02	9000	8067-04	9739-04	5960-01	4644	529.8
739	.27000	00000	444 00	8034-02	9700-02	9700-02	9000	1941-03	2344-03	1434	1.174	530.1
739	27000	25 000	445 00	2578-01	3115-01	3115-01	9000	6230-03	7527-03	4585	3.543	532.7
739	27000	45 000	446 00	4551-01	5503-01	5503-01	9000	1100-02	1330-02	8061	6.441	535.6
739	27000	65 000	447 00	.1067-01	1289-01	1289-01	9000	2578-03	3114-03	.1901	1.534	531.1
739	.27000	90 000	448 00	2759-02	3331-02	.3331-02	9000	6667-04	8048-04	.4930-01	.3924	529.3
739	.43800	00000	449 00	6299-02	.7603-02	7603-02	9000	1522-03	.1837-03	.1126	.8773	529.1
739	.43800	25 000	450 00	2323-01	2806-01	.2806-01	9000	5614-03	.6781-03	.4139	3.189	531.4
739	.43800	45 000	451 00	.3487-01	4213-01	.4213-01	9000	8425-03	1018-02	.6202	4.859	532.5
739	.43800	65.000	452 00	.9234-02	1115-01	.1115-01	9000	2231-03	.2694-03	.1646	1.252	530.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2907

OH84B 60-0 SSME NOZZLE

(R4UY31)

RUN NUMBER	ZO MS	PHI	T/C NO	H/PREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
739	43800	90.000	453 00	2166-02	.2615-02	.2615-02	9000	.5234-04	.6318-04	.3869-01	.2984	529.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2908

OH84B 60-0 SSME NOZZLE

(R4UY31)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
 BDFLAP = -12.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
737	2.003	7.980	40.04	-2.093-01	434.1	1300.	94.62	.4520-01	2.015	3805	.1289-02	.7614-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
737	.3500-01	2870-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
737	.88000-01	315.00	432.00	.3725-02	.4481-02	.4431-02	.9000	1304-03	1568-03	.1004	.7801	529.2
737	.88000-01	00000	433.00	.1818-01	.2188-01	.2188-01	.9000	6352-03	7656-03	.4890	3.680	531.0
737	.88000-01	25.000	434.00	.6476-01	.7814-01	.7814-01	.9000	2265-02	.2735-02	1.720	13.47	540.6
737	.88000-01	45.000	435.00	.1012	.1223	.1223	.9000	3542-02	.4280-02	2.669	20.00	546.2
737	.88000-01	65.000	436.00	.2144-01	.2582-01	.2582-01	.9000	7504-03	.9035-03	.5758	4.330	532.4
737	.88000-01	90.000	437.00	.4279-02	.5148-02	.5148-02	.9000	.1498-03	.1802-03	.1153	.8866	529.4
737	.88000-01	135.00	438.00	.1603-02	.1928-02	.1928-02	.9000	.5610-04	.6747-04	.4329-01	.3167	528.1
737	.17500	00000	439.00	.1465-01	.1764-01	.1764-01	.9000	5129-03	.6173-03	.3940	2.954	531.5
737	.17500	25.000	440.00	.2776-01	.3344-01	.3344-01	.9000	9716-03	.1170-02	.7435	5.841	534.4
737	.17500	45.000	441.00	.7949-01	.9603-01	.9603-01	.9000	2782-02	.3361-02	2.100	16.01	545.0
737	.17500	65.000	442.00	.1861-01	.2240-01	.2240-01	.9000	6512-03	.7841-03	.4994	3.780	532.8
737	.17500	90.000	443.00	.4394-02	.5286-02	.5286-02	.9000	.1538-03	.1850-03	.1185	.9231	529.4
737	.27000	00000	444.00	.1084-01	.1304-01	.1304-01	.9000	3794-03	.4565-03	.2920	2.391	529.9
737	.27000	25.000	445.00	.3782-01	.4556-01	.4556-01	.9000	.1324-02	.1594-02	1.014	7.826	534.0
737	.27000	45.000	446.00	.6349-01	.7660-01	.7660-01	.9000	2222-02	.2681-02	1.687	13.45	540.4
737	.27000	65.000	447.00	.1335-01	.1606-01	.1606-01	.9000	4671-03	.5622-03	.3587	2.893	531.6
737	.27000	90.000	448.00	.3777-02	.4543-02	.4543-02	.9000	.1322-03	.1590-03	1.019	.8109	529.0
737	.43800	.00000	449.00	.8986-02	.1081-01	.1081-01	.9000	.3145-03	.3783-03	.2423	1.889	529.2
737	.43800	25.000	450.00	.3739-01	.4505-01	.4505-01	.9000	.1309-02	.1577-02	1.001	7.698	534.9
737	.43800	45.000	451.00	.4310-01	.5192-01	.5192-01	.9000	.1508-02	.1817-02	1.154	9.031	534.7
737	.43800	65.000	452.00	.1146-01	.1379-01	.1379-01	.9000	.4010-03	.4826-03	.3083	2.344	530.8



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2909

OH84B 60-0 SSME NOZZLE

(R4UY31)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
737	43800	90 000	453 00	.3152-02	3791-02	.3791-02	.9000	.1103-03	.1327-03	.8500-01	.6558	529.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2910

OH84B 60-0 SSME NOZZLE

(R4UY31)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
 BDFLAP = -12.50    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	'PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
727	3 035	7.990	40 06	-.2097-01	670.9	1314.	95 41	.6928-01	3 096	3826.	.1960-02	.7678-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN 110 REF(R) = 0175
727	.4347-01	2330-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
727	.88000-01	315.00	432 00	.5521-02	.6627-02	.6627-02	9000	2400-03	2881-03	.1889	1.469	526.5
727	.88000-01	00000	433 00	.2330-01	.2799-01	.2799-01	9000	1013-02	.1217-02	.7938	5.977	530.0
727	.88000-01	25 000	434 00	.8817-01	.1065	.1065	.9000	.3833-02	.4628-02	2 928	22.82	549.7
727	.88000-01	45 000	435 00	.1634	.1979	.1979	9000	.7100-02	8602-02	5 344	39.74	561.0
727	.88000-01	65 000	436 00	.5800-01	.6981-01	.6981-01	9000	.2521-02	3034-02	1 957	14.68	537.4
727	.88000-01	90 000	437 00	.8130-02	.9761-02	.9761-02	9000	.3534-03	.4243-03	2779	2 138	527.4
727	.88000-01	135.00	438 00	.1718-02	.2062-02	.2062-02	9000	.7469-04	8963-04	5890-01	.4315	525.1
727	.17500	.00000	439 00	.1906-01	.2291-01	.2291-01	9000	.8286-03	9956-03	.6490	4.869	530.4
727	.17500	25 000	440 00	.3935-01	.4736-01	.4736-01	9000	.1711-02	2059-02	1 329	10.43	536.7
727	.17500	45 000	441 00	.1287	.1557	.1557	.9000	.5594-02	.6769-02	4.233	32.08	557.0
727	.17500	65 000	442 00	.5046-01	.6076-01	.6076-01	9000	.2193-02	.2641-02	1 700	12.83	533.7
727	.17500	90 000	443 00	.7852-02	.9427-02	.9427-02	9000	.3413-03	.4098-03	.2684	2 094	527.3
727	.27000	00000	444 00	.1403-01	.1685-01	.1685-01	9000	.6099-03	.7323-03	.4792	3 928	528.0
727	.27000	25 000	445 00	.4324-01	.5201-01	.5201-01	.9000	.1879-02	.2231-02	1 463	11.29	535.2
727	.27000	45 000	446 00	.1213	.1466	.1466	9000	.5272-02	.6373-02	4 009	31 75	553.2
727	.27000	65 000	447 00	.3341-01	.4017-01	.4017-01	9000	.1452-02	.1746-02	1 133	9.132	533.2
727	.27000	90 000	448 00	.6757-02	.8110-02	.8110-02	.9000	.2937-03	.3525-03	.2311	1.842	526.7
727	.43800	.00000	449 00	.1216-01	.1459-01	.1459-01	9000	.5285-03	.6344-03	.4161	3.248	526.3
727	.43800	25.000	450 00	.4128-01	.4964-01	.4964-01	9000	.1794-02	.2157-02	1.400	10.77	533.5
727	.43800	45 000	451 00	.1075	.1297	.1297	.9000	.4674-02	.5637-02	3.593	27.98	544.9
727	.43800	65 000	452 00	.2658-01	.3195-01	.3195-01	9000	.1155-02	.1389-02	.9034	6 865	531.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2911

OH84B 60-0 SSME NOZZLE

(R4UY31)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
727	.43800	90 000	453 00	.6133-02	7362-02	.7362-02	9000	2666-C3	.3200-03	.2097	1.620	526.8

DATE 23 FEB 80

CH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2912

CH84B 60-0 SSME NOZZLE

(R4UY32)

SSME NOZZLE

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = -5.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
723	4257	7.900	39.97	-1731-01	100.1	1263	53.66	.1113-01	4862	3748.	.3207-03	.7536-07

RUN NUMBER	H-REF BTU/P FT2SEC	SIN NO REF(P) = 0175
723	1711-01	5736-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=C.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/P FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
723	88000-01	315.00	432.00	2935-02	3532-02	.3532-02	9000	5020-04	6042-04	.3746-01	2928	516.5
723	88000-01	00000	433.00	1142-01	1375-01	.1375-01	9000	1953-03	2352-03	1456	1.104	517.2
723	88000-01	25.000	434.00	4349-01	5240-01	.5240-01	9000	7439-03	8964-03	5522	4.369	520.4
723	88000-01	45.000	435.00	6782-01	8176-01	.8176-01	9000	1160-02	1399-02	.8589	6.514	522.3
723	88000-01	65.000	436.00	2047-01	2465-01	.2465-01	9000	3502-03	4217-03	2607	1.975	518.1
723	88000-01	80.000	437.00	5141-02	6188-02	.6188-02	9000	8795-04	1059-03	6563-01	.5078	516.5
723	88000-01	135.00	438.00	3349-02	4030-02	.4030-02	9000	5729-04	6894-04	4281-01	3152	515.4
723	17500	00000	439.00	9754-02	1175-01	.1175-01	9000	1668-03	2009-03	.1242	9380	518.1
723	17500	25.000	440.00	2033-01	2448-01	.2448-01	9000	3477-03	.4188-03	2587	2.048	518.6
723	17500	45.000	441.00	4922-01	5812-01	.5812-01	9000	8248-03	9942-03	6113	4.718	521.5
723	17500	65.000	442.00	1805-01	2174-01	.2174-01	9000	3088-03	3719-03	2298	1.752	519.6
723	17500	90.000	443.00	4758-02	5727-02	.5727-02	9000	.8139-04	9797-04	6073-01	4764	516.5
723	27000	00000	444.00	7015-02	8447-02	.8447-02	9000	1200-03	1445-03	.8941-01	7368	517.6
723	27000	25.000	445.00	2216-01	2669-01	.2669-01	9000	3791-03	.4566-03	2821	2.195	518.6
723	27000	45.000	446.00	4458-01	5372-01	.5372-01	9000	7626-03	9190-03	5658	4.556	520.7
723	27000	65.000	447.00	1382-01	1665-01	.1665-01	9000	2365-03	2847-03	.1761	1.430	518.0
723	27000	90.000	448.00	4125-02	4365-02	.4365-02	9000	.7056-04	8492-04	5267-01	.4220	516.3
723	43800	00000	449.00	5005-02	6026-02	.6026-02	9000	8562-04	1031-03	6384-01	.5007	517.0
723	43800	25.000	450.00	1800-01	2168-01	.2168-01	9000	3079-03	3708-03	.2292	1.777	518.4
723	43800	45.000	451.00	4179-01	.5035-01	.5035-01	9000	.7149-03	8613-03	.5310	4.188	519.9
723	43800	65.000	452.00	1357-01	1634-01	.1634-01	9000	.2321-03	.2795-03	.1727	1.322	518.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2913

OH84B 60-0 SSME NOZZLE

(R4UY32)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
723	43800	90 000	453 00	3031-02	3648-02	.3648-02	9000	5184-04	6241-04	.3867-01	.3002	516 8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2914

OH84B 60-0 SSME NOZZLE

(R4UY32)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12 50  
 BDFLAP = -5 000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT Y10 6 9943	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
741		7 940	39 99	-1.2082-01	204.3	1266.	33.00	.2198-01	9699	3754.	.6378-03	.7484-07

RUN NUMBER	HREF BTU/ R FT2SEC	SIN NO REF(R) = 0175
741	.2417-01	4069-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	QDOT DEG. R /SEC	TH DEG. R
741	88000-01	315 00	432 00	2565-02	3098-02	.3098-02	9000	.6200-04	7489-04	4558-01	.3538	530.4
741	89000-01	00000	433 00	1252-01	1512-01	.1512-01	9000	.3026-03	3655-03	2224	1 674	530.8
741	89000-01	25 000	434 00	5332-01	6453-01	.6453-01	9000	.1289-02	1560-02	9391	7.367	537.0
741	88000-01	45 000	435 00	5146-01	6225-01	.6225-01	9000	.1244-02	1505-02	9086	6 846	535.2
741	88000-01	65 000	436 00	1345-01	1625-01	.1625-01	9000	.3251-03	3927-03	2389	1.798	530.9
741	88000-01	90 000	437 00	3377 02	4078-02	.4078-02	9000	.8163-04	9857-04	.6010-01	4619	529.4
741	88000-01	135 00	439 00	1429-02	1726-02	.1726-02	9000	.3454-04	4172-04	2543-01	.1859	529.5
741	17500	.00000	439 00	9454-02	.1143-01	.1143-01	9000	.2289-03	2764-03	1681	1 260	531.0
741	17500	25 000	440 00	2065-01	2495-01	.2495-01	9000	.4990-03	6031-03	3659	2 877	532.4
741	17500	45 000	441 00	4192-01	5069-01	.5069-01	9000	.1013-02	1225-02	7404	5.676	534.8
741	17500	65 000	442 00	1204-01	1455-01	.1455-01	9000	.2910-03	3516-03	2138	1 620	531.1
741	17500	90 000	443 00	3293-02	.3983-02	.3983-02	9000	.7972-04	9626-04	5870-01	4574	529.4
741	27000	00000	444 00	7104-02	.8581-02	.8581-02	9000	.1717-03	2074-03	1263	1 034	530.3
741	27000	25 000	445 00	2813-01	3401-01	.3401-01	9000	.6800-03	8220-03	4983	3 850	532.9
741	27000	45 000	446 00	3372-01	4076-01	.4076-01	9000	.8150-03	9852-03	5969	4.775	533.3
741	.27000	65 000	447 00	8397-02	1014-01	.1014-01	9000	.2030-03	2451-03	1493	1.205	530.2
741	27000	90 000	448 00	2799-02	.3379-02	.3379-02	9000	.6764-04	8167-04	.4983-01	.3966	529.0
741	43800	.00000	449 00	7037-02	8464-02	.8464-02	9000	.1694-03	2046-03	.1246	.9704	530.2
741	43800	25.000	450 00	.2747-01	.3320-01	.3320-01	9000	.6639-03	.8024-03	.4868	3 748	532.5
741	43800	45 000	451 00	.2118-01	.2559-01	.2559-01	9000	.5119-03	.6185-03	.3760	2 948	531.2
741	43800	65.000	452 00	.7572-02	.9147-02	.9147-02	9000	.1830-03	2211-03	.1345	1 023	530.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2915

OH84B 60-0 SSME NOZZLE

(R4UY32)

RUN NUMBER	20 MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
741	43800	90.000	453 00	1708-02	2063-02	2063-02	9000	4129-04	.4987-04	.3040-01	.2345	529.5

DATE 23 FEB 80

CH84B MODEL 60-0 IN THE AEDC VKF HYPERSON C TUNNEL

PAGE 2916

CH84B 60-0 SSME NOZZLE

(R40Y32)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
 BDFLAP = -5.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	O PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
735	1.997	7.980	40.06	-2095-01	434.8	1304.	94.91	.4527-01	2.018	3811.	.1287-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
735	.3504-01	2873-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/P FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
735	.88000-01	315.00	432.00	.4557-02	5472-02	.5472-02	.9000	1597-03	1918-03	.1245	.9698	524.0
735	.88000-01	00000	433.00	.1428-01	1715-01	1715-01	.9000	5004-03	6010-03	3899	2.943	524.6
735	.89000-01	25.000	434.00	.5768-01	6944-01	6944-01	.9000	2022-02	2433-02	1.557	12.23	533.6
735	.89000-01	45.000	435.00	.8790-01	1058	1058	.9000	.3077-02	3708-02	2.356	17.72	538.0
735	.89000-01	65.000	436.00	.2014-01	2420-01	2420-01	.9000	7059-03	8490-03	.5490	4.142	525.9
735	.88000-01	90.000	437.00	.4682-02	.5621-02	5621-02	.9000	1641-03	1970-03	.1281	.9880	522.9
735	.86000-01	135.00	438.00	.1809-02	2171-02	.2171-02	.9000	.6339-04	7606-04	4960-01	.3641	521.2
735	.17500	00000	439.00	.1076-01	1293-01	1293-01	.9000	3772-03	4531-03	2938	2.210	524.9
735	.17500	25.000	440.00	.2031-01	.2440-01	2440-01	.9000	7117-03	8552-03	5527	4.358	527.0
735	.17500	45.000	441.00	.6923-01	.8342-01	8342-01	.9000	2426-02	2923-02	1.860	14.24	537.2
735	.17500	65.000	442.00	.1766-01	2122-01	2122-01	.9000	.6187-03	7435-03	4806	3.649	526.9
735	.17500	90.000	443.00	.4583-02	5502-02	5502-02	.9000	.1606-03	1928-03	.1254	.9805	523.0
735	.27000	00000	444.00	.8917-02	1071-01	.1071-01	.9000	3125-03	3753-03	2435	2.000	524.4
735	.27000	25.000	445.00	.3232-01	3886-01	3886-01	.9000	1133-02	1362-02	.8780	6.798	528.5
735	.27000	45.000	446.00	.5602-01	6743-01	6743-01	.9000	1963-02	.2363-02	1.512	12.10	533.4
735	.27000	65.000	447.00	.1255-01	1507-01	1507-01	.9000	.4396-03	5281-03	.3422	2.769	525.2
7 5	.27000	90.000	448.00	.3863-02	4637-02	4637-02	.9000	.1354-03	.1625-03	.1057	.8446	522.5
735	.43800	.00000	449.00	.8500-02	.1021-01	1021-01	.9000	2979-03	3577-03	.2323	1.816	523.8
735	.43800	25.000	450.00	.3577-01	.4301-01	.4301-01	.9000	.1254-02	.1507-02	.9707	7.487	529.3
735	.43800	45.000	451.00	.3570-01	4292-01	4292-01	.9000	1251-02	1504-02	.9689	7.604	529.2
735	.43800	65.000	452.00	.9767-02	1173-01	1173-01	.9000	.3423-03	.4111-03	2666	2.033	524.7



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF H PERSONIC TUNNEL

PAGE 2917

OH84B 60-0 SSME NOZZLE

(R4UY32)

PUN NUMBER	20 MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
735	.43800	90 000	453 00	3114-02	3738-02	3738-02	9000	.1091-03	.1310-03	8521-01	.6594	522.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPersonic TUNNEL

PAGE 2918

OH84B 60-0 SSME NOZZLE

(R4UY32)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = -5.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
729	3.003	7.990	40.07	-2097-01	668.3	1320.	95.85	6901-01	3.084	3835.	.1943-02	.7713-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
729	4342-01	.2341-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG R
729	88000-01	315.00	432.00	3797-02	4555-02	4555-02	.9000	1648-03	.1978-03	.1307	1.016	527.0
729	88000-01	.00000	433.00	1740-01	2089-01	.2089-01	.9000	.7555-03	.9068-03	.5976	4.503	528.7
729	88000-01	25.000	434.00	1017	1227	.1227	.9000	.4415-02	5327-02	3.401	26.51	549.3
729	89000-01	45.000	435.00	.8038-01	.9686-01	.9686-01	.9000	.3490-02	4205-02	2.706	20.30	544.2
729	88000-01	65.000	436.00	.2629-01	3158-01	3158-01	.9000	.1142-02	.1371-02	.8997	6.769	531.6
729	88000-01	90.000	437.00	.5400-02	6477-02	6477-02	.9000	.2344-03	2812-03	1.860	1.432	526.4
729	88000-01	135.00	438.00	1691-02	2028-02	2028-02	.9000	.7342-04	8803-04	.5837-01	.4278	524.6
729	17500	.00000	439.00	1496-01	1798-01	.1798-01	.9000	6502-03	7805-03	5135	3.854	529.8
729	17500	25.000	440.00	3633-01	.4367-01	4367-01	.9000	1577-02	1896-02	1.239	9.736	534.1
729	17500	45.000	441.00	6120-01	7370-01	7370-01	.9000	2657-02	3200-02	2.066	15.78	542.0
729	17500	65.000	442.00	2176-01	2614-01	2614-01	.9000	9446-03	.1135-02	7441	5.635	531.9
729	17500	90.000	443.00	5018-02	6019-02	6019-02	.9000	.2178-03	2613-03	.1728	1.349	528.2
729	27000	.00000	444.00	1121-01	.1345-01	.1345-01	.9000	.4866-03	5840-03	3853	3.158	528.0
729	27000	25.000	445.00	5623-01	6763-01	6763-01	.9000	2441-02	2936-02	1.911	14.73	537.0
729	27000	45.000	446.00	4811-01	5787-01	5787-01	.9000	2089-02	.2512-02	1.634	13.05	537.2
729	27000	65.000	447.00	1384-01	.1661-01	.1661-01	.9000	6007-03	.7211-03	4748	3.834	529.2
729	27000	90.000	448.00	.3818.02	4579-02	4579-02	.9000	1658-03	.1988-03	1316	1.050	525.5
729	43800	.00000	449.00	1208-01	1449-01	.1449-01	.9000	.5244-03	.6293-03	4154	3.241	527.5
729	43800	25.000	450.00	.6091-01	.7331-01	.7331-01	.9000	.4645-02	.1183-02	2.064	15.84	538.1
729	43800	45.000	451.00	.2494-01	.2995-01	.2995-01	.9000	.1003-02	.1360-02	.8538	6.695	531.1
729	43800	65.000	452.00	.1079-01	.1295-01	.1295-01	.9000	.4686-03	.5624-03	.3707	2.821	528.7

DATE 23 FEB 80

O-84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2919

O-84B-60-0 SSME NOZZLE

(R4UY32)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODDT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
729	.43800	90 000	453 00	3551-02	4260-02	.4260-02	.9000	.1542-03	.1849-03	.1223	.9449	526.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC V-F HYPERSONIC TUNNEL

PAGE 2920

OH84B 60-0 SSME NOZZLE

(R4UY33)

SSME NOZZLE

PARAMETRIC DATA

MACH = 6.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
 BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TC DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
721	.5028	7.900	39.98	-1386-01	100.9	1257.	93.21	1121-01	.4897	3739	.3245-03	.7501-07
RUN NUMBER	HREF BTU/ P FT2SEC	SIN NO REF(R) = 0175										
721	1715-01	5699-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW, °O	H(T/O) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
721	68000-01	315.00	432.00	2817-02	3397-02	.3397-02	.9000	4831-04	.5826-04	.3555-01	.2773	520.8
721	68000-01	00000	433.00	1215-01	1466-01	.1466-01	.9000	2085-03	.2515-03	.1532	1.158	521.9
721	68000-01	25.000	434.00	5596-01	6758-01	.6758-01	.9000	.9600-03	.1159-02	.7020	5.540	525.4
721	68000-01	45.000	435.00	.7374-01	8908-01	.8908-01	.9000	1265-02	.1528-02	.9231	6.984	526.9
721	68000-01	65.000	436.00	.2206-01	2661-01	.2661-01	.9000	3784-03	.4554-03	.2781	2.102	521.8
721	.68000-01	90.000	437.00	5207-02	6279-02	.6279-02	.9000	8932-04	.1077-03	.6575-01	5076	520.6
721	68000-01	135.00	438.00	.2792-02	3366-02	.3366-02	.9000	4789-04	.5774-04	.3530-01	2593	519.7
721	17500	00000	439.00	.9703-02	.1171-01	.1171-01	.9000	1664-03	.2008-03	.1223	9212	522.1
721	17500	25.000	440.00	2539-01	.3064-01	.3064-01	.9000	4355-03	.5255-03	.3194	2.523	523.3
721	17500	45.000	441.00	.5189-01	6267-01	.6267-01	.9000	8901-03	.1075-02	.6505	5.010	525.8
721	17500	65.000	442.00	.2085-01	2515-01	.2515-01	.9000	.3576-03	.4315-03	.2624	1.996	522.9
721	17500	90.000	443.00	.4880-02	5884-02	.5884-02	.9000	8370-04	.1009-03	.6161-01	4823	520.6
721	27000	00000	444.00	6602-02	7964-02	.7964-02	.9000	.1132-03	.1366-03	.8325-01	6847	521.6
721	.27000	25.000	445.00	2341-01	2824-01	.2824-01	.9000	4015-03	.4844-03	.2947	2.289	522.7
721	27000	45.000	446.00	4566-01	.5512-01	.5512-01	.9000	7832-03	.9455-03	.5733	4.607	524.6
721	27000	65.000	447.00	.1519-01	.1832-01	.1832-01	.9000	.2605-03	.3143-03	.1914	1.551	522.1
721	27000	90.000	448.00	.3821-02	.4608-02	.4608-02	.9000	.6554-04	.7903-04	.4826-01	.3858	520.4
721	43800	00000	449.00	.4661-02	.5621-02	.5621-02	.9000	.7995-04	.9643-04	.5880-01	.4601	521.2
721	43800	25.000	450.00	.1606-01	.1938-01	.1938-01	.9000	.8755-03	.3324-03	.2023	1.566	522.3
721	43800	45.000	451.00	.4257-01	.5138-01	.5138-01	.9000	.7302-03	.8814-03	.5350	4.210	524.0
721	43800	65.000	452.00	.1456-01	.1757-01	.1757-01	.9000	.2498-03	.3014-03	.1834	1.400	522.5

DATE 23 FEB 80

CH64B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2921

CH64B 60-0 SSME NOZZLE

(R4UY33)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW. 10	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
721	43800	90 000	453.00	.3512-02	.4235-02	4235-02	.9000	.6024-04	7265-04	.4432-01	.3433	520.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2922

OH84B 60-0 SSME NOZZLE

(R4UY33)

SSME NOZZLE

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TJ DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
743	1.018	7.940	39.99	-2081-01	209.4	1267	93.08	.2253-01	9941	3755.	.6532-03	.7490-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
743	2447-01	4021-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	TIME	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
743	88000-01	315.00	432.00	.2597-02	.3135-02	.3133-02	.9000	.6355-04	.7672-04	.4690-01	.3644	528.7
743	88000-01	00000	433.00	.1105-01	.1334-01	.1334-01	.9000	.2704-03	.3264-03	.1996	1.504	528.5
743	88000-01	25.000	434.00	.6395-01	.7735-01	.7735-01	.9000	.1565-02	.1893-02	1.145	8.989	535.3
743	88000-01	45.000	435.00	.4506-01	.5446-01	.5445-01	.9000	.1103-02	.1333-02	.8091	6.103	533.0
743	88000-01	65.000	436.00	.1330-01	.1606-01	.1605-01	.9000	.3236-03	.3931-03	.2401	1.809	529.2
743	88000-01	90.000	437.00	.3505-02	.4231-02	.4231-02	.9000	.8579-04	.1035-03	.6339-01	.4877	527.8
743	88000-01	135.00	438.00	.1425-02	.1720-02	.1720-02	.9000	.3488-04	.4209-04	.2577-01	.1886	527.7
743	17500	00000	439.00	.9068-02	.1095-01	.1095-01	.9000	.2219-03	.2680-03	.1637	1.229	529.1
743	17500	25.000	440.00	.2333-01	.2818-01	.2818-01	.9000	.5709-03	.6897-03	.4200	3.305	531.1
743	17500	45.000	441.00	.3796-01	.4588-01	.4588-01	.9000	.9292-03	.1123-02	.6820	5.234	532.6
743	17500	65.000	442.00	.1145-01	.1382-01	.1382-01	.9000	.2802-03	.3383-03	.2066	1.566	529.4
743	17500	90.000	443.00	.3211-02	.3876-02	.3876-02	.9000	.7860-04	.9486-04	.5808-01	.4530	527.7
743	27000	00000	444.00	.7730-02	.9333-02	.9333-02	.9000	.1892-03	.2284-03	.1395	1.143	529.1
743	27000	25.000	445.00	.3018-01	.3646-01	.3646-01	.9000	.7386-03	.8922-03	.5435	4.203	530.9
743	27000	45.000	446.00	.2946-01	.3559-01	.3559-01	.9000	.7210-03	.8710-03	.5303	4.247	531.2
743	27000	65.000	447.00	.7959-02	.9608-02	.9608-02	.9000	.1948-03	.2352-03	.1438	1.162	528.5
743	27000	90.000	448.00	.2810-02	.3392-02	.3392-02	.9000	.6879-04	.8301-04	.5085-01	.4051	527.4
743	43800	00000	449.00	.7857-02	.9485-02	.9485-02	.9000	.1923-03	.2321-03	.1419	1.106	528.7
743	43800	25.000	450.00	.2817-01	.3403-01	.3403-01	.9000	.6895-03	.8329-03	.5073	3.910	530.9
743	43800	45.000	451.00	.1672-01	.2019-01	.2019-01	.9000	.4093-03	.4942-03	.3019	2.370	529.1
743	43800	65.000	452.00	.6880-02	.8306-02	.8306-02	.9000	.1684-03	.2033-03	.1242	.9456	528.8

DATE 23 FEB 80

04848 MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2923

04848 60-0 SSME NOZZLE

(R4UY33)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
743	.43800	90 000	453 00	2405-02	2902-02	2903-02	.9000	5886-04	.7104-04	.4351-01	.3359	527.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC /KF HYPERSONIC TUNNEL

PAGE 2924

OH84B 60-0 SSME NOZZLE

(R4UY33)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
733	1.990	7.980	40.04	-2.091-01	433.8	130.5	94.98	.4516-01	2.013	3813.	.1283-02 .7643-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
733	3501-01	2877-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PLT	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
733	.88000-01	315.00	432.00	.2805-02	3370-02	.3370-02	.9000	.9819-04	.1180-03	.7641-01	.5943	526.4
733	.88000-01	00000	433.00	1303-01	1566-01	1566-01	.9000	.4563-03	.5484-03	.3544	2.671	528.0
733	.88000-01	25.000	434.00	.8891-01	1073	1073	.9000	.3113-02	.3757-02	2.369	18.52	543.7
733	.88000-01	45.000	435.00	.4735-01	5704-01	5704-01	.9000	.1658-02	.1997-02	1.274	9.595	536.1
733	.88000-01	65.000	436.00	.1558-01	.1874-01	.1874-01	.9000	.5456-03	.6561-03	.4227	3.183	530.0
733	.88000-01	90.000	437.00	.3605-02	.4332-02	.4332-02	.9000	.1262-03	.1517-03	.9812-01	.7550	527.3
733	.88000-01	135.00	438.00	.1736-02	2085-02	2085-02	.9000	.6077-04	.7300-04	.4732-01	.3466	525.9
733	.17500	00000	439.00	1045-01	1256-01	1256-01	.9000	.3659-03	.4399-03	.2841	2.134	528.2
733	.17500	25.000	440.00	.2959-01	3561-01	3561-01	.9000	.1036-02	.1247-02	.7997	6.297	532.7
733	.17500	45.000	441.00	.3996-01	4812-01	4812-01	.9000	.1399-02	.1685-02	1.076	8.250	535.2
733	.17500	65.000	442.00	.1284-01	.1544-01	.1544-01	.9000	.4494-03	.5404-03	.3481	2.638	530.1
733	.17500	90.000	443.00	.3489-02	.4193-02	.4193-02	.9000	.1222-03	.1468-03	.9498-01	.7410	527.2
733	.27000	00000	444.00	.8613-02	1035-01	1035-01	.9000	.3015-03	.3623-03	.2344	1.922	527.3
733	.27000	25.000	445.00	.4603-01	.5541-01	.5541-01	.9000	.1611-02	.1940-02	1.242	9.588	534.0
733	.27000	45.000	446.00	.3089-01	.3718-01	.3718-01	.9000	.1081-02	.1302-02	.8339	6.670	533.6
733	.27000	65.000	447.00	.9010-02	1083-01	1083-01	.9000	.3154-03	.3792-03	.2448	1.977	528.6
733	.27000	90.000	448.00	.2780-02	.3340-02	.3340-02	.9000	.9733-04	.1169-03	.7573-01	.6036	526.6
733	.43800	00000	449.00	.1091-01	.1311-01	.1311-01	.9000	.3819-03	.4588-03	.2971	2.318	526.8
733	.43800	25.000	450.00	.4343-01	.5227-01	.5227-01	.9000	.1520-02	.1830-02	1.172	9.022	533.6
733	.43800	45.000	451.00	.1622-01	.1950-01	.1950-01	.9000	.5679-03	.6828-03	.4404	3.457	529.2
733	.43800	65.000	452.00	.7347-02	.9831-02	.9831-02	.9000	.2572-03	.3092-03	.1997	1.520	528.4



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2925

OH84B 60-0 SSME NOZZLE

(R40Y33)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
733	43800	90.000	453.00	2178-02	2617-02	.267-02	9000	.7625-04	.9161-04	.5932-01	.4581	526.8

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2926

OH84B 60-0 SSME NOZZLE

(R4UY33)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BOFLAP = 0000 SPDRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TC DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
731	3.017	7.990	40.06	-2096-01	671.5	1320	95.85	.6935-01	3.099	3835.	.1953-02	.7713-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
731	4352-01	.2335-01

\*\*\*TEST DATA\*\*\*

PLN NUMBER	ZO MS	PH'	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
731	.88000-01	315.00	432.00	.3705-02	.4439-02	.4439-02	9000	.1612-03	.1932-03	.1286	1.002	522.2
731	.88000-01	00000	433.00	.1663-01	.1993-01	.1993-01	9000	.7236-03	.8675-03	.5757	4.348	524.1
731	.88000-01	25.000	434.00	.9183-01	.1106	.1106	9000	.3997-02	.4815-02	3.105	24.29	542.8
731	.88000-01	45.000	435.00	.7531-01	.9068-01	.9068-01	9000	.3278-02	.3946-02	2.553	19.19	540.7
731	.88000-01	65.000	436.00	.2850-01	.3420-01	.3420-01	9000	.1240-02	.1488-02	.9828	7.409	527.4
731	.88000-01	90.000	437.00	.5541-02	.6638-02	.6638-02	9000	.2411-03	.2889-03	.1925	1.486	521.3
731	.88000-01	135.00	438.00	.1795-02	.2149-02	.2149-02	9000	.7810-04	.9351-04	.6253-01	.4596	519.0
731	.17500	00000	439.00	.1475-01	.1769-01	.1769-01	9000	.6419-03	.7698-03	.5099	3.835	525.3
731	.17500	25.000	440.00	.3945-01	.4738-01	.4738-01	9000	.1717-02	.2062-02	1.354	10.66	531.0
731	.17500	45.000	441.00	.5256-01	.6322-01	.6322-01	9000	.2288-02	.2752-02	1.790	13.71	537.1
731	.17500	65.000	442.00	.2329-01	.2795-01	.2795-01	9000	.1014-02	.1216-02	.8027	6.092	527.8
731	.17500	90.000	443.00	.5267-02	.6310-02	.6310-02	9000	.2292-03	.2746-03	.1830	1.432	521.2
731	.27000	00000	444.00	.1273-01	.1526-01	.1526-01	9000	.5541-03	.6643-03	.4408	3.621	524.1
731	.27000	25.000	445.00	.5044-01	.6059-01	.6059-01	9000	.2195-02	.2637-02	1.728	13.36	532.2
731	.27000	45.000	446.00	.3591-01	.4312-01	.4312-01	9000	.1563-02	.1877-02	1.232	9.871	531.0
731	.27000	65.000	447.00	.1425-01	.1709-01	.1709-01	9000	.6203-03	.7438-03	.4930	3.990	524.8
731	.27000	90.000	448.00	.3941-02	.4721-02	.4721-02	9000	.1715-03	.2055-03	.1371	1.096	520.5
731	.43800	00000	449.00	.1927-01	.1927-01	.1927-01	9000	.6996-03	.8387-03	.5566	4.350	524.0
731	.43800	25.000	450.00	.3948-01	.4740-01	.4740-01	9000	.1718-02	.2063-02	1.356	10.46	530.2
731	.43800	45.000	451.00	.1424-01	.1708-01	.1708-01	9000	.6199-03	.7434-03	.4926	3.874	525.1
731	.43800	65.000	452.00	.9442-02	.1132-01	.1132-01	9000	.4109-03	.4926-03	.3270	2.494	524.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2927

OH84B 60-0 SSME NOZZLE

(R4UY33)

RUN NUMBER	ZO MS	PHI	I/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HFFF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
731	43800	90.000	453.00	3000-02	3594-02	.3594-02	.9000	.1306-03	1564-03	.1043	.8075	521.2

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2928

OH84B 60-0 SSME NOZZLE

(R4UY34)

SSME NOZZLE

PARAMETRIC DATA

MACH = 11.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BOFLAP = - 2.50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
633	5017	7.900	39.93	- 3449-02	100.0	1252	92.84	.1112-01	4857	3732.	.3232-03	.7471-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
633	1707-01	5709-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
633	98000-01	315.00	432.00	1848-02	2234-02	.2234-02	.9000	3154-04	.3813-04	.2285-01	.1777	527.2
633	88000-01	00000	433.00	8147-02	9849-02	.9843-02	.9000	1391-03	1681-03	.1007	.7595	527.4
633	88000-01	25.000	434.00	2791-01	3376-01	.3375-01	.9000	4764-03	5763-03	.3441	2.710	529.4
633	88000-01	45.000	435.00	5228-01	6328-01	.6328-01	.9000	8926-03	.1080-02	.6429	4.854	531.4
633	88000-01	65.000	436.00	2623-01	3172-01	.3172-01	.9000	4478-03	5416-03	.3236	2.438	528.9
633	88000-01	90.000	437.00	4734-02	.5724-02	.5724-02	.9000	8082-04	9771-04	.5854-01	.4504	527.4
633	88000-01	135.00	438.00	1975-02	.2388-02	.2388-02	.9000	3372-04	4076-04	.2445-01	.1790	526.8
633	.17500	00000	439.00	8325-02	1007-01	.1007-01	.9000	1421-03	1719-03	.1028	.7724	528.2
633	.17500	25.000	440.00	1588-01	1920-01	.1920-01	.9000	2710-03	3278-03	.1959	1.543	528.9
633	.17500	45.000	441.00	3287-01	.3977-01	.3977-01	.9000	5611-03	6790-03	.4045	3.107	530.8
633	.17500	65.000	442.00	.2129-01	.2575-01	.2575-01	.9000	3635-03	.4396-03	.2627	1.992	529.0
633	.17500	90.000	443.00	.4674-02	.5523-02	.5523-02	.9000	.7808-04	.9439-04	.5656-01	.4413	527.3
633	27000	00000	444.00	6346-02	.7672-02	.7672-02	.9000	.1063-03	.1310-03	.7842-01	.6429	527.7
633	27000	25.000	445.00	.1168-01	1413-01	.1413-01	.9000	1995-03	2412-03	.1443	1.118	528.0
633	27000	45.000	446.00	.2282-01	2761-01	.2761-01	.9000	.3896-03	4713-03	.2814	2.256	529.3
633	27000	65.000	447.00	1329-01	1607-01	.1607-01	.9000	.2268-03	2743-03	.1641	1.325	528.4
633	27000	90.000	448.00	.3559-02	.4302-02	.4302-02	.9000	.6076-04	7345-04	.4402-01	.3508	527.1
633	.43800	00000	449.00	.4639-02	.5608-02	.5608-02	.9000	.7919-04	.9573-04	.5735-01	.4474	527.4
633	.43800	25.000	450.00	6265-02	.7574-02	.7574-02	.9000	.1070-03	.1293-03	.7746-01	.5980	527.4
633	.43800	45.000	451.00	.1127-01	.1363-01	.1363-01	.9000	.1924-03	.2326-03	.1391	1.092	528.5
633	.43800	65.000	452.00	.9424-02	.1140-01	.1140-01	.9000	.1609-03	.1946-03	.1163	.8855	528.6

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OH84B MODEL 60-O IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2929

OH84B 60-O SSME NOZZLE

(R4UY34)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
633	43800	90.000	453 00	.2072-02	.2504-02	.2504-02	.9000	.3537-04	.4275-04	.2562-01	.1978	527.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2930

OH84B 60-0 SSME NOZZLE

(R4UY34)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BOFLAP = -12.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PV/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEC R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
659	1.001	7.940	39.97	-4645-06	206.7	1270	93.30	.2223-01	.9811	3760.	.6431-03	.7508-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175
659	2432-01	4053-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF P=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
659	.88000-01	315.00	432.00	.9984-03	.1202-02	.1202-02	.9000	2429-04	2923-04	.1822-01	.1422	519.5
659	.88000-01	00000	433.00	.5147-02	.6197-02	.6197-02	.9000	1252-03	1507-03	.9383-01	.7100	520.2
659	.89000-01	25.000	434.00	.1951-01	.2350-01	.2350-01	.9000	4745-03	5717-03	.3543	2.800	522.9
659	.88000-01	45.000	435.00	.2176-01	.2623-01	.2623-01	.9000	5293-03	6381-03	.3943	2.987	524.7
659	.88000-01	65.000	436.00	.2107-01	.2538-01	.2538-01	.9000	5125-03	6174-03	.3830	2.895	522.4
659	.88000-01	90.000	437.00	.3541-02	.4263-02	.4263-02	.9000	6612-04	1037-03	.6455-01	.4986	520.1
659	.89000-01	135.00	438.00	.1542-02	.1856-02	.1856-02	.9000	3750-04	4514-04	.2815-01	.2069	519.0
659	.17500	00000	439.00	.5109-02	.6152-02	.6152-02	.9000	1243-03	.1496-03	.9307-01	.7018	520.7
659	.17500	25.000	440.00	.1615-01	.1946-01	.1946-01	.9000	3929-03	.4734-03	.2934	2.318	523.1
659	.17500	45.000	441.00	.1396-01	.1682-01	.1682-01	.9000	3396-03	.4092-03	.2532	1.952	524.0
659	.17500	65.000	442.00	.1570-01	.1891-01	.1891-01	.9000	3818-03	4600-03	.2852	2.170	522.7
659	.17500	90.000	443.00	.3216-02	.3872-02	.3872-02	.9000	7822-04	9417-04	.5863-01	.4591	520.1
659	.27000	00000	444.00	.3854-02	.4640-02	.4640-02	.9000	9374-04	1129-03	.7023-01	.5779	520.4
659	.27000	25.000	445.00	.1183-01	.1425-01	.1425-01	.9000	2877-03	3466-03	.2151	1.671	522.0
659	.27000	45.000	446.00	.1007-01	.1213-01	.1213-01	.9000	2449-03	2950-03	.1830	1.472	522.6
659	.27000	65.000	447.00	.8644-02	.1041-01	.1041-01	.9000	2103-03	.2532-03	.1573	1.275	521.6
659	.27000	90.000	448.00	.2119-02	.2551-02	.2551-02	.9000	.5154-04	.6205-04	.3865-01	.3091	519.8
659	.43800	00000	449.00	.2790-02	.3359-02	.3359-02	.9000	6786-04	.8170-04	.5088-01	.3985	519.9
659	.43800	25.000	450.00	.5267-02	.6342-02	.6342-02	.9000	.1281-03	.1543-03	.9597-01	.7435	520.6
659	.43800	45.000	451.00	.4404-02	.5303-02	.5303-02	.9000	.1071-03	.1290-03	.8024-01	.6325	520.6
659	.43800	65.000	452.00	.4337-02	.5223-02	.5223-02	.9000	.1055-03	.1270-03	.7895-01	.6031	521.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2931

OH84B 60-0 SSME NOZZLE

(R4UY34)

RUN NUMBER	ZC MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAI / TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
659	43800	90 000	453.00	1258-02	.1515-02	15 5-02	.9000	.3060-04	.3684-04	.2294-01	.1778	520.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2932

OH84B 60-0 SSME NOZZLE

(R4UY34)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = 12.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	O DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
647	1.985	7.990	40.00	3471-02	436.3	131.2	95.49	.4542-01	2.025	3823.	.1284-02	.7684-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
647	3514-01	2678-01

\*\*\*TEST DATA\*\*\*

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/R FT2SEC	DTWDT DEG R /SEC	TW DEG R
647	88000-01	315.00	432.00	1403-02	.1684-02	.1634-02	.9000	4930-04	5916-04	3879-01	3020	524.8
647	88000-01	00000	433.00	9131-02	.1096-01	.1035-01	9000	3209-03	3852-03	2520	1.901	526.3
647	88000-01	25.000	434.00	5359-01	.6449-01	.6449-01	9000	1883-02	2266-02	1.462	11.47	535.5
647	89000-01	45.000	435.00	9139-01	.9812-01	.9812-01	.9000	2860-02	3448-02	2.199	16.51	542.6
647	.88000-01	65.000	436.00	2000-01	.2402-01	.2402-01	.9000	7029-03	.8441-03	5510	4.153	527.7
647	88000-01	90.000	437.00	5693-02	.6832-02	.6832-02	9000	.2001-03	.2401-03	1574	1.213	524.9
647	.88000-01	135.00	438.00	1835-02	.2201-02	.2201-02	9000	6448-04	.7735-04	.5085-01	3729	523.2
647	17500	00000	439.00	9919-02	.1071-01	.1071-01	9000	3134-03	.3763-03	.2458	1.847	527.3
647	17500	25.000	440.00	2403-01	.2889-01	.2839-01	9000	8445-03	.1015-02	6594	5.189	530.9
647	17500	45.000	441.00	6100-01	.7349-01	.7349-01	9000	2144-02	2582-02	1.655	12.65	539.7
647	17500	65.000	442.00	1805-01	.2168-01	.2168-01	9000	6341-03	.7618-03	4962	3.763	529.1
647	17500	90.000	443.00	.5432-02	.6520-02	.6520-02	9000	1909-03	.2291-03	.1502	1.173	525.1
647	27000	.00000	444.00	6873-02	.8251-02	.8251-02	9000	2415-03	.2899-03	1896	1.556	526.4
647	27000	25.000	445.00	2272-01	.2729-01	.2729-01	.9000	.7982-03	.9590-03	6245	4.833	529.4
647	27000	45.000	446.00	3875-01	.4660-01	.4660-01	.9000	1362-02	.1638-02	1.060	8.476	533.5
647	.27000	65.000	447.00	1358-01	.1679-01	.1679-01	9000	4912-03	.5899-03	3850	3.110	527.9
647	27000	90.000	448.00	4819-02	.5783-02	.5783-02	9000	1693-03	.2032-03	.1333	1.063	524.8
647	43900	00000	449.00	4811-02	.5774-02	.5774-02	9000	1690-03	.2029-03	1329	1.038	525.5
647	.43800	.5.000	450.00	9405-02	.1129-01	.1129-01	9000	3305-03	.3968-03	.2593	2.003	527.0
647	43800	4.5.000	451.00	.1221-01	.1466-01	.1466-01	.9000	.4291-03	.5153-03	.3363	2.642	527.8
647	43800	65.000	452.00	1050-01	.1261-01	.1261-01	9000	.3691-03	.4432-03	.2895	2.205	527.3



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY34)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
647	43800	90 000	453 00	4891-02	.5870-02	5871-02	.9000	.1719-03	2063-03	1351	1.044	525 5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2934

OH84B 60-0 SSME NOZZLE

(R4UY34)

SSME NOZZLE

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BOFLAP = -12.50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	T DEC R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
649	3.013	7.990	40.03	6967-02	670.5	1320.	95.85	6924-01	3.094	3835	.1950-02	.7713-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175
649	4349-01	2337-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	20 MS	PH	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEC R /SEC	TW DEC R
649	88000-01	3.5 00	432 00	4096-02	4915-02	4915-02	.9000	1781-03	2137-03	.1411	1.097	527.5
649	88000-01	00000	433 00	1492-01	1791-01	1791-01	.9000	.6490-03	7791-03	5129	3.863	529.3
649	88000-01	25 000	434 00	1010	1220	1220	9000	4394-02	5306-02	3.374	26.28	551.8
649	88000-01	45 000	435 00	1104	1333	1333	9000	4802-02	5797-02	3.691	27.59	551.0
649	88000-01	65 000	436 00	2606-01	3132-01	3132-01	9000	1133-02	1362-02	.8908	6.694	533.7
649	88000-01	90 000	437 00	6291-02	7552-02	7552-02	9000	2736-03	3284-03	2163	1.663	529.2
649	88000-01	135 00	438 00	1715-02	2058-02	2058-02	9000	7458-04	8948-04	.5913-01	4.328	526.9
649	17500	00000	439 00	1410-01	1694-01	1694-01	9000	.6133-03	.7366-03	.4836	3.627	531.2
649	17500	25 000	440 00	3419-01	4110-01	4110-01	9000	1487-02	1788-02	1.166	9.151	535.6
649	17500	45 000	441 00	9194-01	1109	1109	9000	3998-02	.4624-02	3.082	23.46	548.9
649	17500	65 000	442 00	.2418-01	2907-01	.2907-01	.9000	1052-02	1264-02	8251	6.239	535.0
649	17500	90 000	443 00	6081-02	.7300-02	7300-02	9000	2645-03	3175-03	2090	1.629	529.3
649	27000	00000	444 00	1062-01	1275-01	.1275-01	.9000	4617-03	5543-03	3649	2.989	529.3
649	27000	25 000	445 00	3830-01	4604-01	.4604-01	.9000	1666-02	2002-02	1.307	10.09	534.9
649	27000	45 000	446 00	6614-01	7955-01	.7955-01	.9000	2876-02	3464-02	2.238	17.82	541.7
649	27000	65 000	447 00	.2042-01	2454-01	2454-01	9000	8891-03	1067-02	6984	5.627	533.3
649	27000	90 000	448 00	5418-02	6503-02	6503-02	.9000	2356-03	.2828-03	1864	1.484	528.5
649	43800	00000	449 00	6730-02	8075-02	8075-02	.9000	2927-03	3512-03	2319	1.809	527.3
649	43800	25 000	450 00	1627-01	.1953-01	.1953-01	9000	.7074-03	.8493-03	5587	4.309	529.8
649	43800	45 000	451 00	2842-01	3416-01	3416-01	9000	1236-02	.1486-02	.9718	7.611	533.5
649	43800	65 000	452 00	1926-01	2314-01	2314-01	9000	8375-03	.1006-02	.6594	5.010	532.3

DATE 23 FEB 83

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY34)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
649	43800	90 000	453 00	5637-02	6765-02	6765-02	9000	2451-03	.2942-03	.1939	1.496	528.7

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2936

OH84B 60-O SSME NOZZLE

(R4UY35)

SSME NOZZLE

PARAMETRIC DATA

MACH = 9.000 ALPHA = 40.00° BETA = 0000 ELEVON = -5.000  
 BDFLAP = 5.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	O DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
635	4992	7.900	39.96	-3.3458-02	99.17	1249.	92.62	1102-01	4815	3727.	.3212-03	7453-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
635	.1699-01	5725-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P=TA4/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
635	88000-01	315.00	432.00	1568-02	.1895-02	.1835-02	9000	2664-04	3222-04	.1924-01	.1496	526.6
635	88000-01	00000	433.00	6433-02	7778-02	7778-02	.9000	.1093-03	1322-03	7895-01	.5955	526.4
635	88000-01	25.000	434.00	.2252-01	2724-01	.2724-01	9000	3827-03	.4629-03	.2759	2.174	527.8
635	88000-01	45.000	435.00	.4802-01	5812-01	.5812-01	.9000	8160-03	.9875-03	5866	4.432	529.8
635	88000-01	55.000	436.00	1555-01	1881-01	1831-01	9000	2643-03	.3195-03	.1908	1.439	526.8
635	88000-01	90.000	437.00	3895-02	4709-02	.4709-02	9000	6619-04	8000-04	.4786-01	3686	525.6
635	88000-01	135.00	438.00	2540-02	3069-02	3059-02	9000	.4315-04	5215-04	.3123-01	.2288	524.9
635	17500	00000	439.00	5806-02	7021-02	7021-02	9000	9866-04	.1193-03	.7119-01	.5351	527.0
635	17500	25.000	440.00	1102-01	1333-01	1333-01	9000	1872-03	2264-03	.1350	1.064	527.7
635	17500	45.000	441.00	3047-01	3686-01	3636-01	9000	.5176-03	.6263-03	3724	2.863	529.2
635	17500	65.000	442.00	1344-01	1626-01	1626-01	9000	2284-03	.2762-03	.1649	1.252	526.9
635	.17500	90.000	443.00	3606-02	4359-02	.4359-02	9000	6127-04	7406-04	.4431-01	3460	525.5
635	27000	00000	444.00	4851-02	5866-02	5836-02	9000	8243-04	9967-04	.5950-01	4880	526.8
635	27000	25.000	445.00	1065-01	1298-01	.1238-01	9000	1809-03	.2188-03	1305	1.011	527.4
635	.27000	45.000	446.00	2010-01	2432-01	.2432-01	9000	3416-03	.4131-03	.2462	1.975	527.8
635	27000	65.000	447.00	9157-02	1107-01	.1107-01	9000	1556-03	1881-03	1123	.9079	526.8
635	27000	90.000	448.00	3286-02	3972-02	.3972-02	9000	5584-04	.6749-04	.4039-01	.3221	525.4
635	43800	00000	449.00	3545-02	.4286-02	.4236-02	9000	6023-04	7282-04	.4349-01	.3394	526.6
635	.43800	25.000	450.00	5005-02	8051-02	.6051-02	.9000	.8504-04	1028-03	.6142-01	.4745	526.4
635	43800	45.000	451.00	.8648-02	.1046-01	1046-01	.9000	.1469-03	.1777-03	.1061	8333	526.9
635	43800	65.000	452.00	5998-02	7253-02	.7253-02	.9000	.1019-03	.1232-03	.7358-01	5606	526.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL,

PAGE 2937

OH84B 60-0 SSME NOZZLE

(R4UY35)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TA J/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
635	43800	90 000	453 00	2308-02	.2790-02	.2730-02	.9000	.3921-04	4740-04	.2835-01	.2190	525.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2936

OH84B 60-0 SSME NOZZLE

(R4UY35)

SSME NOZZLE

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00° BETA = .0000 ELEVON = -5.000  
 BDFLAP = 5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	O DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
635	.4992	7.900	39.96	-3458-02	99.17	1249	92.62	1102-01	4815	3727.	.3212-03	7453-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
635	.1699-01	5725-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P= TA4/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
635	88000-01	315.00	432.00	.1568-02	.1895-02	.1835-02	9000	2664-04	3222-04	1924-01	.1496	526.6
635	88000-01	00000	433.00	.6433-02	.7778-02	.7778-02	9000	.1093-03	1322-03	7895-01	.5955	526.4
635	88000-01	25.000	434.00	.2252-01	.2724-01	.2724-01	9000	3827-03	4629-03	2759	2.174	527.8
635	88000-01	45.000	435.00	.4802-01	.5812-01	.5812-01	9000	8160-03	.9875-03	5866	4.432	529.8
635	88000-01	55.000	436.00	.1555-01	.1881-01	.1831-01	9000	2643-03	3195-03	1908	1.439	526.8
635	88000-01	90.000	437.00	.3895-02	.4709-02	.4709-02	9000	6619-04	8000-04	.4786-01	.3686	525.6
635	88000-01	135.00	438.00	.2540-02	.3069-02	.3039-02	9000	4315-04	5215-04	.3123-01	.2288	524.9
635	17500	00000	439.00	.5806-02	.7021-02	.7021-02	9000	.9866-04	1193-03	7119-01	.5351	527.0
635	17500	25.000	440.00	.1102-01	.1333-01	.1333-01	9000	1872-03	2264-03	1350	1.064	527.7
635	17500	45.000	441.00	.3047-01	.3686-01	.3636-01	9000	.5176-03	6263-03	3724	2.863	529.2
635	17500	65.000	442.00	.1344-01	.1626-01	.1626-01	9000	2284-03	.2762-03	.1649	1.252	526.9
635	17500	90.000	443.00	.3606-02	.4359-02	.4359-02	9000	6127-04	7406-04	.4431-01	.3460	525.5
635	.27000	00000	444.00	.4851-02	.5866-02	.5836-02	9000	8243-04	9967-04	5950-01	4880	526.8
635	.27000	25.000	445.00	.1065-01	.1298-01	.1238-01	9000	1809-03	.2188-03	1305	1.011	527.4
635	.27000	45.000	446.00	.2010-01	.2432-01	.2432-01	9000	3416-03	.4131-03	2462	1.975	527.8
635	.27000	65.000	447.00	.9157-02	.1107-01	.1117-01	9000	1556-03	1881-03	1123	9079	526.8
635	.27000	90.000	448.00	.3286-02	.3972-02	.3972-02	9000	5584-04	.6749-04	4039-01	.3221	525.4
635	43800	00000	449.00	.3545-02	.4286-02	.4236-02	9000	6023-04	7282-04	4349-01	.3394	526.6
635	43800	25.000	450.00	.5005-02	.6051-02	.6051-02	9000	.8504-04	1028-03	.6142-01	.4745	526.4
635	43800	45.000	451.00	.8648-02	.1046-01	.1046-01	9000	.1469-03	.1777-03	.1061	.8333	526.9
635	43800	65.000	452.00	.5998-02	.7253-02	.7253-02	9000	.1019-03	.1232-03	7358-01	5606	526.7

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2939

0484B 60-0 SSME NOZZLE

(R4UY35)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.8 TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
657	.43800	90.000	453.00	1150-02	.1388-02	.1128-02	.9000	2766-04	.3338-04	2041-01	.1577	526.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2940

OH84B 60-0 SSME NOZZLE

(R4UY35)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 3.000      ALPHA = 40.00      BETA = .0000      ELEVON = -5.000  
 BDFLAP = -3.000      SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TJ DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
645	1.997	7.980	40.01	-4664-06	434.4	1303	94.84	.4522-01	2.016	3810.	.1267-08	.7631-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF'R) = 0.175
645	3502-01	2873-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF P=1.0	H/HREF R=0.9	H/HREF P=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
645	.89000-01	315.00	432.00	2747-02	3304-02	3304-02	9000	.9619-04	1157-03	7425-01	5762	530.8
645	.89000-01	00000	433.00	1299-01	1563-01	1563-01	9000	4549-03	5475-03	3504	2.635	532.4
645	.89000-01	25.000	434.00	8439-01	1021	1021	9000	2955-02	3574-02	2.225	17.34	549.9
645	.89000-01	45.000	435.00	3890-01	.4688-01	4688-01	9000	1362-02	.1642-02	1.043	7.846	537.4
645	.89000-01	65.000	436.00	2100-01	2528-01	2528-01	9000	7353-03	8855-03	5647	4.242	534.6
645	.89000-01	90.000	437.00	6460-02	7774-02	7774-02	.9000	2262-03	2723-03	.1744	1.338	532.0
645	.89000-01	135.00	438.00	.1589-02	1911-02	1911-02	9000	5563-04	6692-04	4298-01	3141	530.1
645	17500	00000	439.00	1340-01	1614-01	1614-01	.9000	4694-03	5652-03	3608	2.702	533.9
645	17500	25.000	440.00	3081-01	3714-01	3714-01	.9000	1079-02	1301-02	8252	6.470	537.9
645	17500	45.000	441.00	3664-01	4418-01	4418-01	.9000	1283-02	.1547-02	9798	7.494	539.1
645	17500	65.000	442.00	1813-01	2185-01	2185-01	9000	6351-03	7651-03	.4870	3.680	535.9
645	17500	90.000	443.00	5965-02	7178-02	7178-02	9000	2099-03	2514-03	1610	1.253	532.0
645	27000	00000	444.00	1081-01	1301-01	1301-01	9000	3785-03	.4556-03	2915	2.384	532.5
645	.27000	25.000	445.00	3250-01	3916-01	3916-01	9000	1138-02	.1371-02	.8709	6.713	537.4
645	27000	45.000	446.00	3225-01	3887-01	3887-01	9000	.1130-02	.1361-02	8642	6.899	537.5
645	27000	65.000	447.00	1730-01	2084-01	2084-01	.9000	.6060-03	.7299-03	.4649	3.742	535.4
645	27000	90.000	448.00	5014-02	.6033-02	.6033-02	9000	.1756-03	2113-03	1354	1.077	531.5
645	.43800	00000	449.00	7047-02	8479-02	8479-02	9000	2468-03	2969-03	.1903	1.481	531.7
645	.43800	25.000	450.00	1482-01	.1784-01	.1784-01	9000	.5189-03	.6248-03	.3988	3.069	534.0
645	.43800	45.000	451.00	.2066-01	2488-01	2488-01	.9000	.7237-03	.8715-03	.5560	4.352	534.4
645	.43800	65.000	452.00	.1799-01	.2166-01	.2166-01	.9000	.6299-03	.7587-03	.4834	3.667	535.3



DATE 23 FEB 80

04848 MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2941

04848 60-0 SSME NOZZLE

(R4UY35)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
645	43600	90 000	453 00	5008-02	6027-02	6027-02	.9000	.1754-03	.2111-03	.1352	1.042	531.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2942

OH84B 60-0 SSME NOZZLE

(R4UY35)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.900    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
 BDFLAP = -5.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEC R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
655	2.999	7.990	40.01	6952-02	675.0	1330	96.58	.6970-01	3.115	3849.	.1948-02	.7772-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
655	4369-01	2340-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG R
655	.88000-01	3.5 00	432 00	4112-02	4924-02	4924-02	9000	1796-03	2151-03	1447	1.127	524.1
655	.88000-01	00000	433 00	1537-01	1841-01	1841-01	.9000	6714-03	8044-03	5398	4.073	525.7
655	.88000-01	25 000	434 00	7275-01	8752-01	8752-01	.9000	.3178-02	.3823-02	2.504	19.59	541.9
655	.88000-01	45 000	435 00	1824-01	2186-01	2186-01	9000	7967-03	.9552-03	6382	4.825	528.6
655	.88000-01	65 000	436 00	2309-01	.2768-01	2768-01	9000	1009-02	.1209-02	.8080	6.088	528.6
655	.88000-01	90 000	437 00	1179-01	.1412-01	.1412-01	.9000	5150-03	.6169-03	.4145	3.194	524.8
655	.88000-01	135 00	438 00	1990-02	2382-02	2382-02	9000	.8695-04	1041-03	.7029-01	.5160	521.3
655	.17500	00000	439 00	1492-01	1788-01	1788-01	.9000	6517-03	7812-03	5224	3.924	528.0
655	.17500	25 000	440 00	4034-01	4844-01	4844-01	.9000	1762-02	2116-02	1.401	11.01	534.5
655	.17500	45 000	441 00	1754-01	.2104-01	.2104-01	9000	7665-03	.9191-03	6140	4.721	528.7
655	.17500	65 000	442 00	2075-01	.2489-01	2489-01	.9000	9065-03	1087-02	.7254	5.500	529.5
655	.17500	90 000	443 00	1094-01	1311-01	1311-01	9000	4780-03	5726-03	.3846	3.004	525.0
655	.27000	00000	444 00	1129-01	1353-01	1353-01	9000	4933-03	5912-03	3964	3.253	526.1
655	.27000	25 000	445 00	3485-01	4181-01	4181-01	9000	1522-02	.1827-02	1.215	9.395	531.4
655	.27000	45.000	446 00	1682-01	2016-01	2016-01	9000	.7349-03	.8809-03	5890	4.725	528.1
655	.27000	65.000	447 00	2660-01	3192-01	3192-01	9000	1162-02	1394-02	9287	7.493	530.7
655	.27000	90 000	448 00	8540-02	1023-01	.1023-01	.9000	3731-03	.4468-03	3008	2.401	523.6
655	.43800	00000	449 00	7286-02	.8727-02	.8727-02	.9000	.3183-03	3813-03	2562	2.001	524.8
655	.43800	25 000	450 00	1760-01	2110-01	2110-01	.9000	.7688-03	9216-03	.6163	4.757	528.0
655	.43800	45.000	451 00	1487-01	1782-01	1782-01	.9000	6496-03	.7785-03	5217	4.100	526.6
655	.43800	65 000	452 00	2602-01	3121-01	.3121-01	.9000	.1137-02	.1364-02	.9088	6.912	530.2

DATE 23 FEB 80

0494B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2943

0494B 60-0 SSME NOZZLE

(R4UY35)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
655	43800	90.000	453.00	7812-02	.9357-02	93.7-02	.9000	.3413-03	.4088-03	.2750	2.127	523.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2944

OH84B 60-0 SSME NOZZLE

(R4UY36)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = .0000 SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	O DE; R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
637	5033	7.900	39.93	- 6897-02	99.99	1243	92.62	.1111-01	.4855	3727.	.3238-03	.7453-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
637	.1706-01	.5702-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
637	.88000-01	315 00	432 00	2567-02	3103-02	.3113-02	.9000	4379-04	.5295-04	3161-01	.2459	526.7
637	.88000-01	00000	433 00	6224-02	7525-02	.7525-02	.9000	.1062-03	.1284-03	.7670-01	.5785	526.4
637	.88000-01	25.000	434 00	3397-01	4110-01	.4110-01	.9000	5796-03	7013-03	4169	3.284	529.3
637	.88000-01	45 000	435 00	4546-01	5502-01	.5502-01	.9000	.7756-03	.9386-03	.5576	4.213	529.8
637	.88000-01	65 000	436 00	1145-01	1385-01	.1335-01	.9000	.1954-03	.2363-03	1409	1.062	527.6
637	.88000-01	90 000	437 00	.3232-02	3907-02	3907-02	.9000	.5514-04	.6666-04	3982-01	3066	526.4
637	.88000-01	135 00	438 00	1968-02	2379-02	2379-02	.9000	3357-04	.4058-04	2426-01	1777	526.0
637	17500	00000	439 00	5958-02	7205-02	7205-02	.9000	.1017-03	1229-03	7336-01	.5514	527.0
637	17500	25 000	440 00	1290-01	.1560-01	1530-01	.9000	2201-03	.2662-03	1587	1.251	527.6
637	.17500	45 000	441 00	3185-01	3855-01	3855-01	.9000	.5434-03	6576-03	3907	3.003	529.7
637	17500	65 000	442 00	1065-01	1288-01	1288-01	.9000	1817-03	2197-03	1310	9940	527.7
637	.17500	90 000	443 00	3433-02	4151-02	.4151-02	.9000	5858-04	.7082-04	.4231-01	.3303	526.3
637	.27000	00000	444 00	.4780-02	5780-02	.5780-02	.9000	8156-04	.9861-04	5888-01	.4829	526.7
637	27000	25 000	445 00	1248-01	.1509-01	1509-01	.9000	.2129-03	2574-03	1535	1.190	527.4
637	.27000	45 000	446 00	2192-01	.2652-01	.2652-01	.9000	.3740-03	.4524-03	.2694	2.161	528.3
637	.27000	65 000	447 00	.6976-02	8436-02	.8436-02	.9000	1190-03	.1439-03	.8587-01	.6941	527.2
637	.27000	90.000	448 00	.2629-02	.3178-02	.3178-02	.9000	.4485-04	5421-04	3240-01	.2583	526.1
637	43800	.00000	449 00	.3488-02	.4217-02	.4217-02	.9000	5951-04	.7195-04	.4298-01	.3355	526.4
637	.43800	25.000	450 00	.5996-02	.7250-02	.7250-02	.9000	.1023-03	1237-03	.7388-01	.5706	526.5
637	.43800	45 000	451 00	.9461-02	1144-01	1144-01	.9000	1614-03	.1952-03	.1164	9149	527.2
637	43800	65 000	452 00	.5070-02	.6131-02	.6131-02	.9000	.8651-04	.1046-03	.6242-01	.4755	527.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2945

OH84B 60-0 SSME NOZZLE

(R4UY36)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAI/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
637	43800	90 000	453 00	2634-02	3185-02	.3135-02	9000	.4494-04	5433-04	.3246-01	2507	526 4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2948

OH84B 60-0 SSME NOZZLE

(R4UY36)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = -5.000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
663	1 016	7 940	39 97	-4643-06	207 3	1260.	92.56	2230-01	.9840	3745.	6501-03	.7449-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
663	2433-01	4028-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
663	.88000-01	315 00	432 00	.1146-02	.1382-02	.1322-02	9000	2787-04	3361-04	2057-01	1604	521 6
663	.88000-01	00000	433 00	.8577-02	.1034-01	.1034-01	.9000	2086-03	.2516-03	1538	1 163	522.4
663	.88000-01	25 000	434 00	.2856-01	.3448-01	.3448-01	.9000	6948-03	8389-03	5098	4 022	526.0
663	.88000-01	45 000	435 00	.4647-01	.5511-01	.5611-01	.9000	1130-02	1365-02	8283	6 268	526.9
663	.88000-01	65 000	436 00	.1002-01	.1208-01	.1208-01	.9000	2437-03	2939-03	.1798	1 359	522 0
663	.88000-01	90 000	437 00	.4651-02	.5608-02	.5608-02	.9000	.1131-03	1364-03	8355-01	6449	521 2
663	.88000-01	135 00	438 00	.1374-02	.1656-02	.1656-02	.9000	3343-04	4030-04	2474-01	1817	519.8
663	.17500	00000	439 00	.7305-02	.8814-02	.8814-02	.9000	.1777-03	2144-03	1308	.9848	523.6
663	.17500	25 000	440 00	.1012-01	.1221-01	.1221-01	.9000	2463-03	.2971-03	1813	1 432	523 4
663	.17500	45 000	441 00	.3475-01	.4196-01	.4196-01	.9000	8454-03	.1021-02	6198	4.771	526.5
663	.17500	65 000	442 00	.8982-02	.1083-01	.1083-01	.9000	.2185-03	.2635-03	.1611	1.226	522.4
663	.17500	90 000	443 00	.4249-02	.5123-02	.5123-02	.9000	1034-03	.1246-03	7633-01	5973	521.2
663	.27000	00000	444 00	.6055-02	.7304-02	.7304-02	.9000	.1473-03	.1777-03	.1085	8917	523.0
663	.27000	25 000	445 00	.1169-01	.1411-01	.1411-01	.9000	2845-03	.3432-03	.2094	1 626	523 5
663	.27000	45 000	446 00	.2123-01	.2562-01	.2562-01	.9000	5163-03	.6231-03	3796	3 050	524.6
663	.27000	65 000	447 00	.6447-02	.7775-02	.7775-02	.9000	1568-03	.1891-03	.1156	9368	522.4
663	.27000	90 000	448 00	.3783-02	.4561-02	.4561-02	.9000	9203-04	.1109-03	.6799-01	.5435	520 9
663	.43800	00000	449 00	.3990-02	.4812-02	.4812-02	.9000	.9707-04	.1171-03	.7160-01	5601	522.0
663	.43800	25 000	450 00	.5471-02	.6598-02	.6598-02	.9000	1331-03	1605-03	.9815-01	.7599	522.2
663	.43800	45.000	451.00	.7003-02	.8446-02	.8446-02	.9000	.1704-03	.2055-03	.1256	.9889	522 5
663	.43800	65.000	452 00	.4336-02	.5230-02	.5230-02	.9000	.1055-03	.1272-03	.7779-01	.5940	522.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2947

OH84B 60-0 SSME NOZZLE

(R4Ux36)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW, :0 277: -02	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
653	43600	90 000	453 00	2302-02	2775-02	277: -02	9000	.5599-04	6751-04	.4135-01	3202	521 3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2948

OH84B 60-0 SSME NOZZLE

(R4UY36)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	T1 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
643	2.036	7.990	39.98	-1.1040-01	434.5	1299	94.54	4523-01	2.016	3804.	.1291-02	.7608-07

RUN NUMBER	HREF BTU/ P FT2SEC	STN NO REF(R) = 0175
643	3501-01	2967-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PH'	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG R
643	88000-01	315.00	432.00	2769-02	3331-02	.3331-02	.9000	9694-04	1166-03	.7465-01	5799	528.7
643	88000-01	00000	433.00	1705-01	2051-01	.2051-01	.9000	5967-03	7180-03	.4588	3.455	529.8
643	88000-01	25.000	434.00	6796-01	8207-01	.8207-01	.9000	2379-02	2873-02	1.797	14.05	543.4
643	88000-01	45.000	435.00	2070-01	2492-01	.2492-01	.9000	7246-03	8724-03	.5557	4.194	531.8
643	88000-01	65.000	436.00	1301-01	.1565-01	.1565-01	.9000	4554-03	5490-03	.3499	2.634	530.3
643	88000-01	90.000	437.00	1282-01	1543-01	.1543-01	.9000	4489-03	5401-03	.3451	2.652	529.8
643	88000-01	135.00	438.00	1580-02	1900-02	.1900-02	.9000	5532-04	6653-04	.4266-01	3.122	527.5
643	17500	00000	439.00	1599-01	1912-01	.1912-01	.9000	5561-03	6694-03	.4267	3.199	531.4
643	17500	25.000	440.00	4139-01	4989-01	.4989-01	.9000	1449-02	1746-02	1.105	8.670	536.2
643	17500	45.000	441.00	1805-01	2173-01	.2173-01	.9000	6317-03	7605-03	.4844	3.719	531.9
643	17500	65.000	442.00	1165-01	1402-01	.1402-01	.9000	4078-03	4907-03	.3134	2.376	530.1
643	17500	90.000	443.00	1125-01	1353-01	.1353-01	.9000	3937-03	4737-03	.3027	2.359	529.8
643	27000	00000	444.00	1187-01	1429-01	.1429-01	.9000	4156-03	.5001-03	.3197	2.618	529.6
643	27000	25.000	445.00	3073-01	3702-01	.3702-01	.9000	1076-02	1296-02	.8233	6.359	533.4
643	27000	45.000	446.00	1520-01	1829-01	.1829-01	.9000	5320-03	.6403-03	.4086	3.273	530.8
643	27000	65.000	447.00	.1140-01	.1371-01	.1371-01	.9000	3990-03	4801-03	.3066	2.475	530.1
643	27000	90.000	448.00	.9472-02	1139-01	.1139-01	.9000	.3316-03	.3988-03	.2553	2.033	528.6
643	.43800	00000	449.00	.7328-02	.8813-02	.8813-02	.9000	.2565-03	.3085-03	.1977	1.542	528.0
643	.43800	25.000	450.00	.1340-01	.1612-01	.1612-01	.9000	.4692-03	.5644-03	.3609	2.784	529.4
643	.43800	45.000	451.00	.9528-02	.1146-01	.1146-01	.9000	.3336-03	.4012-03	.2568	2.016	528.9
643	.43800	65.000	452.00	.9936-02	.1195-01	.1195-01	.9000	.3478-03	.4185-03	.2676	2.036	529.3



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2949

OH84B 60-0 SSME NOZZLE

(R4UY36)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
643	43800	90 000	453 00	9792-02	1178-01	1173-01	9000	3428-03	.4123-03	.2639	2 036	528.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2950

OH84B 60-0 SSME NOZZLE

(R4UY36)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 5.000 ALPHA = 40 00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = .0000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TJ DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
653	2 998	7 990	40 02	6362-02	672.4	1327	96 36	.6944-01	3 103	3845.	.1945-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
653	4359-01	2341-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
653	.88000-01	315 00	432 00	5190-02	6221-02	.6221-02	.9000	2262-03	.2712-03	.1810	1.407	526.7
653	.88000-01	.00000	433 00	1722-01	2065-01	.2065-01	.9000	7506-03	.9002-03	5993	4.517	528.2
653	.88000-01	25 000	434 00	3267-01	.3924-01	.3924-01	.9000	1424-02	.1710-02	1.129	8 868	534 1
653	.88000-01	45 000	435 00	1171-01	.1405-01	.1405-01	.9000	5106-03	.6125-03	.4071	3 077	529 3
653	.88000-01	65 000	436 00	2023-01	2427-01	.2427-01	.9000	8819-03	.1058-02	.7025	5 290	530 0
653	.88000-01	90 000	437 00	1335-01	1601-01	.1601-01	.9000	5819-03	.6978-03	.4651	3.579	527 4
653	.88000-01	135 00	438 00	1982-02	.2374-02	.2374-02	.9000	8638-04	.1035-03	.6936-01	.5086	523 7
653	.17500	.00000	439 00	.1710-01	2051-01	.2051-01	.9000	7452-03	.8941-03	.5936	4 454	530 1
653	.17500	25 000	440 00	.3790-01	4555-01	.4555-01	.9000	1652-02	1986-02	1 305	10 24	536.7
653	.17500	45 000	441 00	.1047-01	1256-01	.1256-01	.9000	.4564-03	5475-03	3641	2.799	529 1
653	.17500	65 000	442 00	1751-01	2101-01	.2101-01	.9000	7632-03	.9159-03	6074	4.602	530 8
653	.17500	90 000	443 00	1254-01	1504-01	.1504-01	.9000	5468-03	.6556-03	4368	3.407	527 7
653	.27000	.00000	444 00	1235-01	1481-01	.1481-01	.9000	.5384-03	.6457-03	4297	3 522	528 5
653	.27000	25.000	445 00	2505-01	3009-01	.3009-01	.9000	.1093-02	.1312-02	8680	6 709	532 2
653	.27000	45.000	446 00	1019-01	1222-01	.1222-01	.9000	.4441-03	.5327-03	.3544	2 842	528 7
653	.27000	65 000	447 00	2365-01	2839-01	.2839-01	.9000	1031-02	1237-02	.8190	6 604	532 1
653	.27000	90 000	448 00	9370-02	1123-01	.1123-01	.9000	4084-03	.4896-03	.3270	2 607	526 0
653	.43800	.00000	449 00	7919-02	9493-02	.9493-02	.9000	.3452-03	.4138-03	2761	2 155	526 7
653	.43800	25 000	450 00	.1554-01	1864-01	.1864-01	.9000	6774-03	.8126-03	.5401	4 166	529 3
653	.43800	45.000	451 00	1100-01	.1319-01	.1319-01	.9000	4794-03	.5749-03	.3829	3 007	527.9
653	.43800	65.000	452 00	.2340-01	.2808-01	.2808-01	.9000	.1020-02	.1224-02	.8111	6 165	531.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2951

OH84B 60-0 SSME NOZZLE

(R40Y36)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAL / TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
653	43800	90 000	453 00	.7958-02	.9539-02	.9519-02	.9000	.3469-03	.4158-03	.2777	2.146	526 1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2952

OH84B 60-0 SSME NOZZLE

(R4UY37)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = -5.000  
 BOFLAP = 5.000 SPDBRK = .0000-

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	T DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
639	5035	7.900	39.95	-1383-01	99.79	124.7	92.47	1109-01	4845	3724.	.3237-03	.7441-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
639	1704-01	5702-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TA I/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
639	88000-01	3.5 00	432 00	5506-02	6652-02	.6632-02	.9000	9381-04	.1133-03	6786-01	.5287	523.3
639	88000-01	00000	433 00	1594-01	1926-01	.1926-01	.9000	2716-03	.3281-03	1966	1.485	522.9
639	.88000-01	25 000	434 00	1328	.1609	.1639	.9000	2264-02	.2742-02	1.619	12.73	531.6
639	.88000-01	45 000	435 00	7071-01	.8551-01	.8531-01	.9000	1205-02	1457-02	.8679	6.569	526.4
639	.88000-01	65 000	436 00	1144-01	1382-01	.1332-01	.9000	.1950-03	2355-03	.1413	1.068	521.9
639	.88000-01	90 000	437 00	4343-02	5243-02	.5243-02	.9000	7399-04	8934-04	.5369-01	4145	521.1
639	.88000-01	135 00	438 00	2884-02	3482-02	.3432-02	.9000	.4915-04	5933-04	.3569-01	2621	520.4
639	.17500	00000	439 00	1602-01	1936-01	.1936-01	.9000	.2730-03	3299-03	.1973	1.485	524.0
639	.17500	25 000	440 00	5087-01	6152-01	.6152-01	.9000	8668-03	1048-02	.6242	4.923	526.5
639	.17500	45 000	441 00	.5794-01	7007-01	.7077-01	.9000	.9872-03	1194-02	.7110	5.473	526.5
639	.17500	65 000	442 00	1214-01	.1466-01	.1466-01	.9000	.2068-03	2499-03	.1497	1.139	522.7
639	.17500	90 000	443 00	3840-02	.4636-02	.4636-02	.9000	6543-04	7900-04	.4748-01	.3716	521.0
639	27000	00000	444 00	1105-01	.1335-01	.1335-01	.9000	1882-03	2274-03	.1362	1.119	523.3
639	27000	25 000	445 00	4734-01	.5724-01	.5724-01	.9000	.8066-03	9752-03	.5817	4.511	525.5
639	27000	45 000	446 00	3849-01	.4653-01	.4653-01	.9000	.6559-03	7929-03	.4732	3.801	525.2
639	.27000	65 000	447 00	8748-02	1057-01	.1057-01	.9000	.1491-03	.1800-03	.1080	.8748	522.3
639	27000	90 000	448 00	3533-02	.4265-02	.4265-02	.9000	6020-04	.7268-04	.4369-01	.3492	520.9
639	.43800	00000	449 00	8285-02	.1001-01	.1031-01	.9000	1412-03	.1706-03	.1021	.7985	523.2
639	.43800	25 000	450 00	1699-01	2052-01	.2052-01	.9000	2894-03	.3497-03	.2093	1.619	523.5
639	.43800	45 000	451 00	1449-01	.1750-01	.1750-01	.9000	2469-03	2983-03	.1787	1.407	522.9
639	.43800	65 000	452 00	6801-02	.8215-02	.8215-02	.9000	.1159-03	.1400-03	.8392-01	.6407	522.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2953

OH84B 60-0 SSME NOZZLE

(R4UY37)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
639	43800	90 000	453 00	3902-02	4712-02	47 2-02	9000	6548-04	8028-04	.4822-01	3735	521.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2954

OH84B 60-0 SSME NOZZLE

(R4UY37)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = -5.000  
 BDFLAP = 8.000 SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	T DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
661	1.021	7.940	39.97	-46.44-06	206.8	1254	92.12	.2224-01	.9816	3736.	.6517-03	.7413-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
661	2429-01	4021-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
661	88000-01	315.00	432.00	3307-02	3991-02	399-02	9000	8028-04	9690-04	5871-01	4576	522.4
661	88000-01	00000	433.00	8559-02	1033-01	1033-01	9000	2078-03	.2508-03	1518	1.147	523.0
661	88000-01	25.000	434.00	.6788-01	8213-01	8213-01	9000	.1648-02	1994-02	1.190	9.366	531.3
661	88000-01	45.000	435.00	1860-01	2246-01	2246-01	.9000	.4516-03	5452-03	3297	2.499	523.5
661	88000-01	65.000	436.00	8001-02	9655-02	9655-02	9000	1942-03	2344-03	.1421	1.074	522.0
661	88000-01	90.000	437.00	4122-02	4974-02	4974-02	9000	1001-03	1207-03	.7330-01	.5658	521.2
661	88000-01	135.00	438.00	1849-02	2230-02	2230-02	9000	.4489-04	.5415-04	3294-01	2420	520.0
661	17500	00000	439.00	8043-02	9710-02	9710-02	9000	.1952-03	2357.03	1426	1.073	523.5
661	17500	25.000	440.00	2562-01	3095-01	3095-01	.9000	6220-03	7514-03	4526	3.571	525.9
661	17500	45.000	441.00	1739-01	2099-01	2099-01	9000	4221-03	5097-03	3081	2.375	523.9
661	17500	65.000	442.00	7634-02	9215-02	9215-02	9000	1853-03	2237-03	.1354	1.030	522.9
661	17500	90.000	443.00	3775-02	4554-02	4554-02	9000	9163-04	1106-03	6712-01	5253	521.2
661	27000	00000	444.00	6245-02	7538-02	7538-02	.9000	1516-03	1830-03	1108	9103	523.0
661	27000	25.000	445.00	2491-01	3008-01	3008-01	9000	6046-03	7303-03	4404	3.416	325.3
661	27000	45.000	446.00	1664-01	2009-01	2009-01	9000	.4040-03	.4878-03	.2950	3.371	523.6
661	27000	65.000	447.00	6136-02	.7406-02	.7406-02	9000	1490-03	1798-03	1089	8823	522.5
661	27000	90.000	448.00	.3030-02	.3655-02	.3655-02	.9000	7356-04	8874-04	5390-01	4309	520.9
661	.43800	00000	449.00	.4027-02	4860-02	4860-02	.9000	.9777-04	.1180-03	.7151-01	5594	522.2
661	.43800	25.000	450.00	.1026-01	1239-01	1239-01	.9000	.2492-03	3008-03	1821	1.409	523.1
661	.43800	45.000	451.00	.1002-01	.1209-01	.1209-01	.9000	.2432-03	.2936-03	.1778	1.400	522.8
661	.43800	65.000	452.00	.4929-02	.5828-02	.5828-02	.9000	.1172-03	.1415-03	.8571-01	.6544	522.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2955

OH84B 60-0 SSME NOZZLE

(R4UY37)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= . TAW TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R ; FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
661	43800	90 000	453 00	2094-02	2527-02	.252 '-02	9000	5084-04	.6134-04	.3724-01	.2884	521 2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2956

OH84B 60-0 SSME NOZZLE

(R4UY37)

SSME NOZZLE

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFI AP = 3.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TJ DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
641	2 028	7.980	39 99	- 6938-02	435 7	1292	94 03	4536-01	2 022	3794.	.1302-02	.7567-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
641	3502-01	2854-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
641	88000-01	315 00	432 00	2502-02	3005-02	3005-02	.9000	8761-04	1053-03	.6753-01	5268	520 9
641	88000-01	00000	433 00	1685-01	2026-01	.2025-01	.9000	5902-03	7094-03	4539	3 431	522 6
641	88000-01	25 000	434 00	8097-01	9774-01	.9774-01	.9000	2836-02	3423-02	2 134	16 73	539.0
641	88000-01	45 000	435 00	2049-01	2464-01	.2464-01	.9000	7176-03	8629-03	5503	4.168	524 8
641	88000-01	65 000	436 00	9658-02	1161-01	.1161-01	.9000	3382-03	.4066-03	.2599	1.964	523 2
641	88000-01	90 000	437 00	1007-01	1210-01	.1210-01	.9000	3526-03	4237-03	2715	2 095	521 8
641	88000-01	135 00	438 00	1804-02	2166-02	.2165-02	.9000	6317-04	7586-04	4880-01	3586	519.2
641	17500	00000	439 00	1604-01	.1929-01	.1929-01	.9000	.5617-03	.6754-03	4309	3 243	524 5
641	17500	25 000	440 00	5226-01	6297-01	.6297-01	.9000	.1830-02	2205-02	1 391	10.94	532 0
641	17500	45 000	441 00	1856-01	2233-01	.2233-01	.9000	6502-03	7820-03	4982	3 837	525 4
641	.17500	65 000	442 00	.9118-02	1096-01	.1096-01	.9000	3193-03	.3838-03	2454	1 867	523 2
641	17500	90 000	443 00	8696-02	.1045-01	.1045-01	.9000	.3046-03	3660-03	.2343	1 833	522 3
641	27000	00000	444 00	1178-01	1416-01	.1416-01	.9000	.4126-03	4959-03	.3173	2 608	522 8
641	27000	25 000	445 00	3682-01	4432-01	.4432-01	.9000	.1289-02	1552-02	9845	7 624	528.2
641	.27000	45 000	446 00	1599-01	1923-01	.1923-01	.9000	5602-03	.6736-03	4298	3 454	524 4
641	.27000	65 000	447 00	8676-02	.1043-01	.1043-01	.9000	.3039-03	3652-03	.2336	1 892	522.9
641	27000	90 000	448 00	7502-02	.9013-02	.9013-02	.9000	2627-03	3156-03	.2024	1.617	521 3
641	.43800	00000	449 00	.6089-02	7315-02	.7315-02	.9000	.2132-03	.2562-03	1644	1 286	520 9
641	.43800	25 000	450 00	.1456-01	.1751-01	.1751-01	.9000	.5101-03	6131-03	3919	3 032	523 3
641	.43800	45 000	451 00	.9483-02	.1140-01	.1140-01	.9000	.3321-03	.3991-03	2555	2 012	522 3
641	.43800	65 000	452 00	.7348-02	18831-02	.8831-02	.9000	.2573-03	.3093-03	.1979	1.511	522.5



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2957

OH84B 60-0 SSME NOZZLE

(R4UY37)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF P=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
C41	43800	90 000	453 00	.7099-02	.8530-02	.8530-02	9000	.2486-03 -	2987-03	.1914	1.482	521 8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2958

OH84B 60-0 SSME NOZZLE

(R4UY37)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = 5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	T DEC R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
651	2.990	7.990	40.05	3490-02	671.4	1328.	96.43	.6934-01	3.098	3846.	1941-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
651	4356-01	2344-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
651	.88000-01	315.00	432.00	.2534-02	3035-02	3075-02	9000	1104-03	1322-03	.8882-01	.6921	523.0
651	.88000-01	00000	433.00	1995-01	2391-01	2391-01	.9000	8690-03	1041-02	6966	5.256	526.0
651	.88000-01	25.000	434.00	2372-01	.2845-01	2845-01	9000	1033-02	1239-02	8244	6.491	529.7
651	.88000-01	45.000	435.00	1466-01	1757-01	1757-01	9000	6385-03	7654-03	5115	3.871	526.6
651	.88000-01	65.000	436.00	2438-01	2924-01	2924-01	.9000	1062-02	.1274-02	.8495	6.403	527.9
651	.88000-01	90.000	437.00	9442-02	.1131-01	11.1-01	.9000	4113-03	.4927-03	3307	2.550	523.6
651	.88000-01	135.00	438.00	2113-02	2530-02	.2530-02	.9000	9207-04	1102-03	.7428-01	.5454	520.8
651	17500	00000	439.00	1822-01	2184-01	.2184-01	.9000	7935-03	.9515-03	6350	4.771	527.6
651	17500	25.000	440.00	2895-01	3475-01	.3475-01	.9000	1261-02	1514-02	1.002	7.881	532.7
651	17500	45.000	441.00	1278-01	1532-01	.1532-01	9000	5569-03	6675-03	4460	3.433	526.7
651	17500	65.000	442.00	2169-01	2602-01	2602-01	.9000	9451-03	1134-02	.7548	5.725	529.0
651	17500	90.000	443.00	.8640-02	.1035-01	.1035-01	9000	3764-03	4509-03	.3026	2.365	523.8
651	27000	00000	444.00	1256-01	1505-01	.1505-01	.9000	5470-03	6555-03	4387	3.601	525.6
651	27000	25.000	445.00	.2148-01	2576-01	2576-01	.9000	9359-03	1122-02	7483	5.795	528.1
651	27000	45.000	446.00	1369-01	1641-01	1641-01	.9000	5964-03	7149-03	4780	3.838	526.2
651	.27000	65.000	447.00	.2267-01	.2718-01	.2718-01	.9000	9874-03	1184-02	.7890	6.373	528.6
651	27000	90.000	448.00	7040-02	8432-02	8432-02	.9000	3067-03	3673-03	.2467	1.970	523.2
651	43800	00000	449.00	7345-02	8798-02	.8798-02	.9000	3200-03	3833-03	.2573	2.011	523.6
651	.43800	25.000	450.00	1456-01	.1745-01	.1745-01	.9000	6343-03	7603-03	.5083	3.926	526.4
651	43800	45.000	451.00	1780-01	2134-01	2134-01	.9000	.7755-03	.9295-03	.6215	4.885	526.2
651	43800	65.000	452.00	2058-01	.2468-01	2468-01	.9000	.8966-03	.1075-02	.7172	5.461	527.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2959

OH84B 60-0 SSME NOZZLE

(R4UY37)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAV 'TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
651	43800	90 000	453 00	6008-02	7196-02	7196-02	9000	2617-03	.3135-03	.2105	1 629	523.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2960

OH84B 60-0 SSME NOZZLE

(R4UY38)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 0000  
 BDFLAP = -12.50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
631	.5096	7.900	39.97	.1384-01	101.0	124.7	.1122-01	4903	3724.	.3276-03	.7441-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
631	1714-01	5668-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZC MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAU/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
631	88000-01	315.00	432.00	1836-02	2218-02	2218-02	.9000	3147-04	3802-04	2277-01	1774	523.0
631	88000-01	00000	433.00	5887-02	7111-02	.7111-02	.9000	.1009-03	.1219-03	7305-01	5521	522.7
631	.88000-01	25.000	434.00	1713-01	2070-01	2070-01	.9000	2936-03	3548-03	2120	1.674	524.4
631	.88000-01	45.000	435.00	.4087-01	.4942-01	.4942-01	.9000	.7006-03	8471-03	5050	3.824	525.8
631	88000-01	65.000	436.00	8356-01	.1011	.1011	.9000	1432-02	1734-02	1.028	7.744	529.0
631	88000-01	90.000	437.00	8304-02	1003-01	.1013-01	.9000	1423-03	.1720-03	1031	7948	522.7
631	88000-01	135.00	438.00	2875-02	3471-02	.3471-02	.9000	4928-04	5950-04	3574-01	2623	521.4
631	17500	00000	439.00	5445-02	.6579-02	.6579-02	.9000	.9333-04	1128-03	.6752-01	5084	523.2
631	17500	25.000	440.00	.1069-01	1292-01	.1232-01	.9000	.1833-03	2214-03	.1325	1.047	523.6
631	17500	45.000	441.00	3867-01	.4676-01	.4676-01	.9000	.6629-03	.8016-03	4776	3.677	526.2
631	.17500	65.000	442.00	.6676-01	8080-01	.8030-01	.9000	1144-02	1385-02	.8211	6.227	529.2
631	17500	90.000	443.00	.8444-02	1020-01	.1020-01	.9000	1447-03	1748-03	1048	8195	522.7
631	27000	00000	444.00	.4660-02	.5630-02	.5630-02	.9000	7988-04	9651-04	5781-01	4751	523.0
631	27000	25.000	445.00	1579-01	.1908-01	.1908-01	.9000	2706-03	3271-03	1956	1.518	523.9
631	27000	45.000	446.00	.4520-01	5466-01	5436-01	.9000	7748-03	9369-03	5584	4.484	526.0
631	27000	65.000	447.00	3001-01	3627-01	.3627-01	.9000	5144-03	6218-03	3715	3.006	524.6
631	27000	90.000	448.00	6624-02	8000-02	.8000-02	.9000	.1135-03	1371-03	8225-01	6571	522.2
631	.43800	00000	449.00	.3757-02	.4538-02	.4538-02	.9000	.6439-04	.7779-04	.4661-01	3645	522.8
631	.43800	25.000	450.00	.1092-01	.1319-01	.1319-01	.9000	.1871-03	.2261-03	1354	1.047	523.2
631	.43800	45.000	451.00	.2388-01	.2885-01	.2835-01	.9000	.4093-03	.4946-03	.2958	2.327	524.0
631	.43800	65.000	452.00	.1421-01	.1717-01	.1717-01	.9000	.2436-03	.2944-03	.1762	1.344	523.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYP:RSONIC TUNNEL

PAGE 2961

OH84B 60-0 SSME NOZZLE

(R4UY3B)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	.TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDI DEG R /SEC	TW DEG. R
631	43800	90 000	453 00	4990-02	.6028-02	6022-02	.9000	.8554-04	1033-03	.6197-01	.4792	522.2

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2962

OH84B 60-O SSME NOZZLE

(R4UY38)

SSME NOZZLE

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BOF. AP = -12.50 SPDBRK = .0000 -

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
605	1.013	7.940	39.97	1385-01	206.2	125E.	92.42	2218-01	9787	3742	.6477-03	7437-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
605	.2425-01	4035-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDY DEG. R /SEC	TW DEG R
605	.88000-01	315.00	432.00	2087-02	.2515-02	2515-02	9000	5063-04	6101-04	3742-01	.2923	518.5
605	.88000-01	00000	433.00	2215-02	.2669-02	2669-02	9000	5372-04	6473-04	3972-01	.3009	518.3
605	.88000-01	25.000	434.00	2048-01	.2470-01	2470-01	9000	4968-03	5992-03	.3659	2.893	521.2
605	.88000-01	45.000	435.00	4009-01	.4839-01	4839-01	.9000	9724-03	1174-02	7131	5.403	524.3
605	.88000-01	65.000	436.00	1695-01	.2043-01	2043-01	.9000	4110-03	4955-03	3030	2.293	520.3
605	.88000-01	90.000	437.00	.3235-02	.3898-02	3898-02	9000	7846-04	9455-04	5799-01	4483	518.5
605	.88000-01	135.00	438.00	1772-02	.2134-02	2134-02	.9000	4297-04	5176-04	3180-01	.2339	517.5
605	17500	00000	439.00	2272-02	.2738-02	2738-02	9000	5511-04	.6641-04	.4072-01	3074	518.7
605	17500	25.000	440.00	7251-02	.8741-02	8741-02	9000	1759-03	2120-03	.1298	1.027	519.7
605	17500	45.000	441.00	.2545-01	.3071-01	3071-01	9000	6172-03	.7448-03	4533	3.495	523.3
605	17500	65.000	442.00	1151-01	.1388-01	1388-01	.9000	2793-03	.3367-03	2050	1.567	520.8
605	17500	90.000	443.00	3019-02	.3638-02	3638-02	.9000	7322-04	8824-04	.5413-01	4242	518.4
605	27000	00000	444.00	1789-02	.2156-02	2156-02	.9000	.4340-04	5230-04	.3208-01	2642	518.6
605	27000	25.000	445.00	8370-02	1009-01	1009-01	9000	2030-03	2447-03	1498	1.165	519.8
605	27000	45.000	446.00	1417-01	.1709-01	1709-01	.9000	3437-03	4145-03	.2532	2.039	521.0
605	27000	65.000	447.00	.6570-02	.7920-02	7920-02	.9000	.1593-03	1921-03	.1175	.9534	520.1
605	27000	90.000	448.00	2150-02	.2591-02	2591-02	.9000	.5216-04	6285-04	3857-01	3087	518.2
605	.43800	.00000	449.00	1462-02	.1762-02	1762-02	.9000	.3546-04	.4273-04	.2622-01	.2055	518.2
605	.43800	25.000	450.00	.4111-02	.4955-02	4955-02	.3000	.9971-04	1202-03	.7368-01	.5713	518.8
605	.43800	45.000	451.00	.5136-02	.6190-02	6190-02	.9000	.1246-03	.1501-03	.9199-01	.7256	519.2
605	.43800	65.000	452.00	.3519-02	.4242-02	4242-02	.9000	.8536-04	1029-03	.6301-01	.4818	519.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2963

OH84B 60-0 SSME NOZZLE

(R4UY38)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
605	43800	90 000	453 00	1512-02	1822-02	.1822-02	.9000	.3666-04	.4418-04	.2709-01	2101	518.7

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2964

0484B 60-0 SSME NOZZLE

(R4UY38)

SSME NOZZLE

PARAMETRIC DATA

MACH = 9.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = -12.50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	O DEI, R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
603	2 009	7 980	39 99	1734-01	434 1	129'	94 40	.4519-01	2 614	3801.	1292-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
603	3498-01	2866-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TA J/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
603	88000-01	315 00	432 00	1026-02	1232-02	.1232-02	.9000	.3590-04	4309-04	.2788-01	.2176	519 9
603	.88000-01	00000	433 00	2313-02	3497-02	.3437-02	.9000	1019-03	1223-03	7912-01	5987	520.2
603	88000-01	25 000	434 00	2123-01	2551-01	.2531-01	.9000	7427-03	8924-03	.5738	4 532	524.0
603	88000-01	45 000	435 00	6449-01	7766-01	.7736-01	.9000	2256-02	.2717-02	1.725	13 02	532 1
603	88000-01	65 000	436 00	4782-01	5752-01	.5732-01	.9000	1673-02	2012-02	1 286	9 698	527 6
603	88000-01	90 000	437 00	5743-02	6895-02	.6835-02	.9000	2009-03	2412-03	1559	1 204	520 4
603	88000-01	135 00	438 00	.2008-02	2410-02	.2410-02	.9000	7023-04	8429-04	5463-01	4015	518 9
603	17500	00000	439 00	2621-02	3147-02	.3147-02	.9000	9168-04	1101-03	7115-01	5365	520.6
603	17500	25 000	440 00	8229-02	9883-02	.9883-02	.9000	2878-03	3457-03	.2230	1.762	522.1
603	17500	45 000	441 00	4029-01	4847-01	.4847-01	.9000	.1409-02	1696-02	1.083	8 325	528 6
603	17500	65 000	442 00	3603-01	.4334-01	.4334-01	.9000	.1260-02	1516-02	9680	7 343	528 5
603	17500	90 000	443 00	5703-02	.6847-02	.6847-02	.9000	.1995-03	2395-03	1549	1.212	520 5
603	27000	00000	444 00	1917-02	.2301-02	.2301-02	.9000	.6706-04	.8050-04	.5206-01	4284	520 3
603	27000	25 000	445 00	.9628-02	.1156-01	.1156-01	.9000	3368-03	4045-03	2608	2 026	522 2
603	27000	45 000	446 00	.2433-01	2925-01	.2925-01	.9000	8512-03	1023-02	6565	5 273	525.4
603	27000	65 000	447 00	1767-01	2123-01	.2123-01	.9000	6181-03	.7427-03	.4778	3.868	523.8
603	.27000	90 000	448 00	4744-02	.5696-02	.5696-02	.9000	1660-03	.1993-03	.1288	1 030	520 6
603	.43800	00000	449 00	.1406-02	1687-02	.1637-02	.9000	.4917-04	.5902-04	3818-01	.2990	520 1
603	.43800	25 000	450 00	.4838-02	.5809-02	.5809-02	.9000	.1692-03	.2032-03	.1313	1 017	521 0
603	.43800	45 000	451 00	.9426-02	.1132-01	.1132-01	.9000	.3297-03	.3960-03	.2555	2.013	521 7
603	.43800	65.000	452 00	.9197-02	.1105-01	.1105-01	.9000	.3217-03	.3865-03	.2490	1.901	522 7



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2965

OH84B 60-0 SSME NOZZLE

(R4UY38)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
603	43800	90 000	453 00	3474-02	4171-02	4171-02	9000	1215-03	.1459-03	.9428-01	7303	520.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2966

OH84B 60-0 SSME NOZZLE

(R4UY38)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = -12.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
581	2.994	7.990	40.05	1047-01	671.7	1327	96.36	.6937-01	3.100	3845.	.1943-02	.7754-02

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
581	4357-01	2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/-REF R*	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG/R /SEC	TW DEG R
581	88000-01	315.00	432.00	1023-02	1226-02	1226-02	9000	4456-04	.5341-04	3567-01	.2774	526.2
581	88000-01	00000	433.00	6872-02	.8240-02	.8240-02	9000	2994-03	.3590-03	2392	1.803	527.7
581	88000-01	25.000	434.00	1787-01	2145-01	2145-01	.9000	7787-03	.9344-03	.6291	4.880	530.4
581	88000-01	45.000	435.00	7426-01	8940-01	.8940-01	.9000	.3235-02	3895-02	2.534	19.01	543.5
581	88000-01	65.000	436.00	8670-01	1044	.1044	9000	3777-02	4548-02	2.956	22.10	544.0
581	88000-01	90.000	437.00	7872-02	.9437-02	.9437-02	.9000	3430-03	4111-03	2744	2.112	526.6
581	88000-01	135.00	438.00	2094-02	2509-02	.2509-02	9000	.9122-04	.1093-03	.7317-01	.5363	524.5
581	17500	.00000	439.00	5191-02	.6224-02	.6224-02	9000	.2261-03	.2712-03	.1807	1.357	527.7
581	17500	25.000	440.00	7706-02	9241-02	.9241-02	.9000	.3357-03	.4026-03	2681	2.113	528.1
581	17500	45.000	441.00	4808-01	.5782-01	.5782-01	.9000	.2095-02	2519-02	1.649	12.61	539.3
581	17500	65.000	442.00	6658-01	8019-01	8019-01	.9000	.2901-02	.3494-02	2.267	17.05	545.2
581	17500	90.000	443.00	7609-02	9123-02	.9123-02	9000	3315-03	3975-03	.2652	2.069	526.9
581	27000	00000	444.00	3473-02	4164-02	.4164-02	9000	.1513-03	1814-03	.1210	9919	527.3
581	27000	25.000	445.00	8390-02	.1006-01	.1006-01	9000	.3655-03	4383-03	2920	2.261	527.9
581	27000	45.000	446.00	3072-01	3689-01	3689-01	.9000	1338-02	1607-02	1.061	8.490	533.6
581	27000	65.000	447.00	3547-01	4261-01	.4261-01	.9000	.1545-02	.1856-02	1.225	9.862	534.3
581	27000	90.000	448.00	7055-02	8458-02	8458-02	.9000	.3074-03	.3685-03	2459	1.960	526.7
581	43800	00000	449.00	.1726-02	2069-02	2069-02	9000	7520-04	9014-04	.6019-01	.4698	526.2
581	.43800	25.000	450.00	4217-02	.5055-02	.5055-02	9000	1837-03	2202-03	1470	1.135	526.7
581	.43800	45.000	451.00	1139-01	.1366-01	.1366-01	.9000	4960-03	.5949-03	3958	3.107	528.8
581	.43800	65.000	452.00	1474-01	.1769-01	.1769-01	.9000	.6424-03	.7708-03	.5114	3.889	530.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2967

OH84B 60-0 SSME NOZZLE

(R4UY38)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TA=110	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
581	43800	90 000	453 00	5365-02	.6432-02	.6432-02	.9000	.2338-03	.2802-03	.1869	1.444	527.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2968

OH84B 60-0 SSME NOZZLE

(R4UY39)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = -5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
621	4994	7.900	39.93	1380-01	97.55	1235.	91.58	.1084-01	4736	3706	.3195-03	.7369-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
621	1662-01	5733-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	TWDT DEG. R /SEC	TW DEG. R
621	88000-01	315.00	432.00	2549-02	3083-02	.3083-02	9000	.4286-04	5185-04	3053-01	.2380	522.4
621	88000-01	00000	433.00	5614-02	6791-02	.6791-02	9000	.9442-04	1142-03	.6724-01	.5082	522.5
621	88000-01	25.000	434.00	2206-01	2670-01	.2670-01	9000	.3710-03	.4491-03	.2635	2.080	524.6
621	88000-01	45.000	435.00	6435-01	.7798-01	.7798-01	9000	.1082-02	.1311-02	.7647	5.783	528.1
621	88000-01	65.000	436.00	4035-01	4885-01	.4885-01	9000	.6786-03	.8216-03	.4811	3.631	525.6
621	88000-01	90.000	437.00	4507-02	.5454-02	.5454-02	9000	.7581-04	9173-04	.5393-01	4.159	523.2
621	88000-01	135.00	438.00	.1865-02	.2256-02	.2256-02	9000	.3137-04	.3794-04	.2234-01	.1639	522.5
621	17500	00000	439.00	5098-02	.6156-02	.6156-02	9000	.8558-04	1035-03	.6091-01	.4587	522.9
621	17500	25.000	440.00	1267-01	1534-01	.1534-01	9000	.2131-03	.2580-03	.1515	1.196	524.0
621	17500	45.000	441.00	.5589-01	.6774-01	.6774-01	9000	.9399-03	.1139-02	.6634	5.101	528.8
621	17500	65.000	442.00	3398-01	.4115-01	.4115-01	9000	.5715-03	.6920-03	4050	3.077	523.9
621	17500	90.000	443.00	4470-02	5408-02	.5408-02	9000	.7517-04	9096-04	.5349-01	4.182	523.1
621	27000	00000	444.00	4398-02	5320-02	.5320-02	9000	.7396-04	8948-04	.5266-01	.4329	522.7
621	27000	25.000	445.00	.1842-01	2229-01	.2229-01	9000	.3097-03	.3749-03	.2200	1.707	524.3
621	27000	45.000	446.00	4574-01	5540-01	.5540-01	9000	.7693-03	9318-03	.5447	4.373	526.6
621	27000	65.000	447.00	1602-01	1939-01	.1939-01	9000	.2694-03	.3261-03	.1914	1.549	524.2
621	27000	90.000	448.00	3733-02	4516-02	.4516-02	9000	.6278-04	7596-04	.4469-01	3.569	522.8
621	43800	00000	449.00	3454-02	4177-02	.4177-02	9000	.5808-04	.7025-04	.4140-01	3.239	521.9
621	43800	25.000	450.00	1096-01	.1326-01	.1326-01	9000	.1844-03	.2231-03	.1312	1.016	522.9
621	43800	45.000	451.00	.1483-01	1795-01	.1795-01	9000	.2495-03	.3018-03	.1775	1.397	523.1
621	43800	65.000	452.00	8356-02	.1011-01	.1011-01	9000	.1405-03	.1701-03	.9993-01	.7625	523.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2969

OH84B 60-0 SSME NOZZLE

(R40Y39)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
621	43800	90 000	453 00	1435-02	.1736-02	.1736-02	.9000	2414-04	.2920-04	.1719-01	.1330	522.6

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DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2970

OH84B 60-0 SSME NOZZLE

(R4UY39)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BCFLAP = -5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PC PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
615	1.002	7.940	39.97	.1384-01	204.7	126.1	92.64	.2202-01	9716	3746.	.6415-03	.7454-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175
615	2418-01	4055-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.8 TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
615	88000-01	315.00	432.00	.2682-02	.3233-02	.3233-02	9000	.6485-04	.7816-04	.4800-01	.3745	520.5
615	88000-01	00000	433.00	.7123-02	.8586-02	.8536-02	9000	.1722-03	.2076-03	.1274	.9638	520.8
615	88000-01	25.000	434.00	.5613-01	.6778-01	.6778-01	.9000	.1357-02	.1639-02	.9951	7.845	527.3
615	88000-01	45.000	435.00	.6533-01	.7888-01	.7888-01	.9000	.1579-02	.1907-02	1.159	8.766	527.1
615	88000-01	65.000	436.00	.1447-01	.1745-01	.1745-01	.9000	.3498-03	.4218-03	.2586	1.955	521.5
615	88000-01	90.000	437.00	.3103-02	.3739-02	.3739-02	.9000	.7503-04	.9040-04	.5562-01	.4297	519.3
615	88000-01	135.00	438.00	.1897-02	.2285-02	.2285-02	.9000	.4586-04	.5524-04	.3404-01	.2503	518.4
615	.17500	00000	439.00	.7270-02	.8764-02	.8764-02	.9000	.1757-03	.2119-03	.1299	.9790	521.6
615	.17500	25.000	440.00	.1992-01	.2403-01	.2403-01	.9000	.4816-03	.5808-03	.3553	2.808	522.9
615	.17500	45.000	441.00	.4357-01	.5260-01	.5260-01	.9000	.1053-02	.1272-02	.7736	5.956	526.3
615	.17500	65.000	442.00	.1210-01	.1459-01	.1459-01	.9000	.2925-03	.3526-03	.2162	1.646	521.5
615	.17500	90.000	443.00	.2672-02	.3219-02	.3219-02	.9000	.6460-04	.7783-04	.4789-01	.3752	519.3
615	.27000	.00000	444.00	.5569-02	.6714-02	.6714-02	.9000	.1346-03	.1623-03	.9957-01	.8191	521.1
615	.27000	25.000	445.00	.1920-01	.2315-01	.2315-01	.9000	.4641-03	.5597-03	.3427	2.662	522.3
615	.27000	45.000	446.00	.2496-01	.3011-01	.3011-01	.9000	.6035-03	.7280-03	.4448	3.576	523.6
615	.27000	65.000	447.00	.7075-02	.8528-02	.8528-02	.9000	.1710-03	.2062-03	.1266	1.027	520.5
615	.27000	90.000	448.00	.2144-02	.2583-02	.2583-02	.9000	.5182-04	.6244-04	.3843-01	.3074	519.2
615	.43800	.00000	449.00	.3690-02	.4448-02	.4448-02	.9000	.8922-04	.1075-03	.6603-01	.5169	520.6
615	.43800	25.000	450.00	.7590-02	.9149-02	.9149-02	.9000	.1835-03	.2212-03	.1358	1.052	520.8
615	.43800	45.000	451.00	.8739-02	.1053-01	.1053-01	.9000	.2113-03	.2547-03	.1563	1.232	520.9
615	.43800	65.000	452.00	.6270-02	.6353-02	.6353-02	.9000	.1274-03	.1536-03	.8425-01	.7202	521.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF H<sup>1</sup>PERSONIC TUNNEL

PAGE 2971

OH84B 60-0 SSME NOZZLE

(R4UY39)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 C	H/HREF R=0 9	H/HREF R=1 W/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
615	43800	90 000	453 00	1806-02	2177-02	.2 77-02	.9000	.4367-04	.5262-04	.3236-01	.2508	519.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2978

OH84B 60-0 SSME NOZZLE

(R4U33)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = -5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
593	2.004	7.980	40 00	1389-01	436.0	1313.	94 84	.4539-01	2.023	3810.	.1292-02	.7631-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
593	3509-01	2867-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	P/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
593	88000-01	315 00	432 00	9647-03	.1158-02	.1158-02	.9000	.3385-04	4062-04	2646-01	.2063	521.1
593	88000-01	00000	433 00	3449-02	.4140-02	.4140-02	.9000	.1210-03	1452-03	9456-01	.7151	521.4
593	.88000-01	25 000	434 00	3002-01	.3609-01	.3509-01	.9000	.1053-02	.1266-02	8159	6.430	528.0
593	88000-01	45 000	435 00	5962-01	.7183-01	.7183-01	.9000	.2092-02	2520-02	1 604	12.08	535.9
593	.88000-01	65 000	436 00	2850-01	.3426-01	.3426-01	.9000	.1000-02	.1202-02	7752	5 844	527.5
593	88000-01	90 000	437 00	4461-02	.5354-02	.5354-02	.9000	.1565-03	.1879-03	.1223	9437	521.5
593	88000-01	135 00	438 00	1886-02	.2262-02	.2262-02	.9000	.6617-04	7938-04	5182-01	3807	519.6
593	17500	00000	439 00	.3382-02	.4059-02	.4059-02	.9000	.1186-03	.1424-03	9264-01	.6980	521.9
593	17500	25 000	440 00	1063-01	.1277-01	.1277-01	.9000	.3730-03	.4479-03	2905	2.294	523 8
593	17500	45 000	441 00	3973-01	.4781-01	.4781-01	.9000	.1394-02	.1677-02	1.075	8.255	531.4
593	17500	65 000	442 00	2142-01	.2574-01	.2574-01	.9000	.7516-03	9032-03	5831	4.427	526.8
593	17500	90 000	443 00	.4444-02	.5333-02	.5333-02	.9000	.1559-03	.1871-03	.1218	.9532	521.4
593	27000	00000	444 00	.2443-02	.2932-02	.2932-02	.9000	.8572-04	.1029-03	6695-01	.5506	521.6
593	27000	25 000	445 00	.1140-01	.1368-01	.1368-01	.9000	.3999-03	.4801-03	.3116	2.419	523.5
593	.27000	45 000	446 00	.2255-01	.2710-01	.2710-01	.9000	.7911-03	.9508-03	.6136	4.925	527 0
593	.27000	65 000	447 00	.1104-01	.1326-01	.1326-01	.9000	.3874-03	.4653-03	.3017	2.442	524.0
593	27000	90 000	448 00	.3332-02	.3999-02	.3999-02	.9000	.1169-03	.1403-03	9141-01	.7307	520 9
593	43800	00000	449 00	.1712-02	.2055-02	.2055-02	.9000	.6007-04	.7209-04	.4694-01	3674	521.2
593	43800	25 000	450 00	.5615-02	.6740-02	.6740-02	.9000	.1970-03	.2365-03	.1537	1.190	522.3
593	.43800	45 000	451 00	.8383-02	.1007-01	.1007-01	.9000	.2941-03	.3531-03	.2293	1.805	523 0
593	.43800	65 000	452 00	.6809-02	.8176-02	.8176-02	.9000	.2389-03	.2868-03	.1862	1.421	523 2



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2973

OH84B 60-0 SSME NOZ7LE

(R4UY39)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF F= T/W/TO	TAW/TO	H(TO) BTU/R F12SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
593	43800	90 000	453 00	2970-02	3564-02	3564-02	.9000	.1042-03	.1250-03	.8142-01	6306	521.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2974

OH84B 60-0 SSME NOZZLE

(R4UY39)

SSME NOZZLE

PARAMETRIC DATA

MACH 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 0000  
 EDFLAP -5.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PC PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
579	2.997	7.990	40 02	.1044-01	670 8	1325.	96.21	6927-01	3.096	3842.	.1943-02	.7742-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
579	.4353-01	2342-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
579	88000-01	315 00	432.00	.6830-03	.8199-03	.3199-03	9000	2973-04	3569-04	.2357-01	.1828	531.8
579	.88000-01	00000	433.00	3953-02	4747-02	.747-02	9000	1721-03	2066-03	1363	1 025	532.5
579	88000-01	25.000	434 00	2772-01	3333-01	3333-01	9000	.1206-02	.1451-02	9483	7.434	538.6
579	.88000-01	45 000	435 00	9722-01	.1175	175	9000	4231-02	5113-02	3 252	24 24	556.2
579	88000-01	65 000	436 00	5140-01	.6188-01	.3188-01	9000	2237-02	.2694-02	1 750	13 09	542.6
579	88000-01	90.000	437 00	6540-02	7853-02	7853-02	9000	2847-03	.3418-03	2254	1 730	532.7
579	88000-01	135.00	438 00	1910-02	2292-02	.2292-02	9000	.8313-04	9977-04	6600-01	.4822	530.7
579	.17500	00000	439 00	3898-02	4682-02	.4682-02	9000	1697-03	.2038-03	1343	1 006	533.0
579	17500	25.000	440 00	.1205-01	.1448-01	.448-01	9000	.5245-03	.6303-03	4139	3 250	535.5
579	17500	45 000	441 00	.6240-01	7526-01	7526-01	9000	.2716-02	.3276-02	2.106	15 02	549.5
579	17500	65 000	442 00	4274-01	5146-01	5146-01	9000	.1860-02	.2240-02	1 454	10 95	542.9
579	17500	90 000	443 00	6154-02	7390-02	7390-02	9000	2679-03	.3217-03	2121	1.650	532.7
579	27000	00000	444 00	.2887-02	3467-02	3467-02	9000	1257-03	.1509-03	9956-01	8142	532.5
579	.27000	25 000	445 00	1208-01	.1452-01	.1452-01	9000	5260-03	6319-03	.4155	3 207	534.6
579	27000	45.000	446 00	3810-01	4586-01	.4586-01	9000	.1652-02	.1996-02	1 299	10 35	541.3
579	27000	65 000	447 00	2367-01	.2846-01	.2846-01	9000	1030-02	.1239-02	.8103	6 514	538 0
579	27000	90 000	448 00	5350-02	6424-02	.3424-02	9000	.2329-03	.2796-03	.1846	1.467	532.1
579	.43800	.00000	449 00	.1986-02	.2385-02	.2385-02	9000	.8645-04	1038-03	.6852-01	.5333	532 0
579	43800	25.000	450 00	5708-02	6854-02	6854-02	9000	.2484-03	.2983-03	.1957	1.515	532.7
579	43800	45.000	451 00	1266-01	.1522-01	1522-01	9000	5513-03	6624-03	.4354	3 407	534.9
579	43800	65.000	452 00	1244-01	1494-01	1494-01	9000	.5413-03	.6504-03	.4272	3 241	535.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2975

OH84B 60-0 SSME NOZZLE

(R4UY39)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
579	43800	90.000	453.00	3981-02	.4780-02	4780-02	.9000	1733-03	.2081-03	.1373	1.057	532.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2976

OH84B 60-0 SSME NOZZLE

(R4UY40)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BOFLAP = .0000 SPCBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
623	4983	7.900	39.97	.1384-01	99.83	1256	93.14	.1109-01	4847	3737	.3215-03	.7495-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
623	1706.01	.5726-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF P=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
623	88000-01	315.00	432.00	2674-02	3227-02	.3227-02	.9000	4552-04	5507-04	3338-01	.2600	524.0
623	88000-01	00000	433.00	4917-02	.5935-02	.5935-02	.9000	.8390-04	.1013-03	.6143-01	.4641	523.5
623	88000-01	25.000	434.00	.1848-01	.2232-01	.2232-01	.9000	.3153-03	3808-03	.2303	1.817	525.3
623	88000-01	45.000	435.00	.6431-01	.7774-01	.7774-01	.9000	.1097-02	.1327-02	.7973	6.026	529.1
623	88000-01	65.000	436.00	3489-01	.4214-01	.4214-01	.9000	.5954-03	.7190-03	.4348	3.281	525.5
623	88000-01	90.000	437.00	4758-02	.5743-02	.5743-02	.9000	.8119-04	.9799-04	.5947-01	.4585	523.3
623	88000-01	135.00	438.00	2265-02	.2733-02	.2733-02	.9000	.3965-04	.4664-04	.2833-01	.2078	522.6
623	17500	.00000	439.00	.5434-02	.6559-02	.6559-02	.9000	.9272-04	.1119-03	.6785-01	.5108	523.9
623	.17500	25.000	440.00	.1208-01	.1458-01	.1458-01	.9000	.2060-03	.2488-03	.1506	1.189	524.7
623	17500	45.000	441.00	.5632-01	.6810-01	.6810-01	.9000	.9610-03	.1162-02	.6976	5.361	529.8
623	17500	65.000	442.00	.3084-01	.3724-01	.3724-01	.9000	.5262-03	.6355-03	.3841	2.916	525.7
623	17500	90.000	443.00	.4844-02	.5846-02	.5846-02	.9000	.8266-04	.9976-04	.6055-01	.4734	523.1
623	27000	00000	444.00	.4689-02	.5659-02	.5659-02	.9000	.8000-04	.9657-04	.5856-01	.4811	523.7
623	.27000	25.000	445.00	.2051-.11	.2489-01	.2489-01	.9000	.3518-03	.4248-03	.2570	1.993	525.2
623	.27000	45.000	446.00	.4893-01	.5913-01	.5913-01	.9000	.8350-03	.1004-02	.6079	4.877	527.6
623	.27000	65.000	447.00	.1554-01	.1876-01	.1876-01	.9000	.2651-03	.3201-03	.1929	1.570	524.3
623	.27000	90.000	448.00	.4156-02	.5015-02	.5015-02	.9000	.7092-04	.8558-04	.5197-01	.4150	522.8
623	43800	.00000	449.00	.3956-02	.4774-02	.4774-02	.9000	.6750-04	.8146-04	.4943-01	.3864	523.4
623	.43800	25.000	450.00	.1409-01	.1701-01	.1701-01	.9000	.2404-03	.2903-03	.1759	1.360	524.1
623	43800	45.000	451.00	.1993-01	.2406-01	.2406-01	.9000	.3401-03	.4106-03	.2486	1.956	524.6
623	43800	65.000	452.00	.9679-02	.1168-01	.1168-01	.9000	.1652-03	.1994-03	.1208	.9216	524.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSOJIC TUNNEL

PAGE 2977

OH84B 60-0 SSME NOZZLE

(R4UY40)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
623	43800	90 000	453 00	2915-02	3518-02	3518-02	9000	4974-04	.6003-04	.3644-01	.2820	523.1

DATE 23 FEB 80

OH84B MODEL 50-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2978

OH84B 50-0 SSME NOZZLE

(R4UY40)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.003    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BCFLAP = 0003    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
613	1.004	7.940	39.97	.1731-01	204.8	1260	92.56	.2203-01	9721	3745.	.6423-03	.7449-07

RUN NUMBER	HREF BTU/ R FT2SEC	SIN NO REF (R) = 0175
613	2419-01	4052-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	FHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
613	88000-01	315.00	432.00	.2779-02	.3351-02	.3351-02	.9000	.6719-04	.8102-04	.4959-01	.3867	521.6
613	88000-01	00000	433.00	.1005-01	.1212-01	.1212-01	.9000	.2431-03	.2931-03	.1793	1.356	522.0
613	88000-01	25.000	434.00	.5581-01	.6743-01	.6743-01	.9000	.1349-02	.1630-02	.9851	.767	528.9
613	88000-01	45.000	435.00	.1573	.1906	.1906	.9000	.3803-02	.4609-02	2.739	20.59	539.4
613	88000-01	65.000	436.00	.2229-01	.2689-01	.2689-01	.9000	.5390-03	.6502-03	.3971	3.000	523.0
613	88000-01	90.000	437.00	.3913-02	.4717-02	.4717-02	.9000	.9461-04	.1140-03	.6992-01	5399	520.6
613	88000-01	135.00	438.00	.1808-02	.2179-02	.2179-02	.9000	.4372-04	.5269-04	.3236-01	.2378	519.5
613	17500	00000	439.00	.1041-01	.1255-01	.1255-01	.9000	.2516-03	.3035-03	.1854	1.396	522.9
613	17500	25.000	440.00	.2683-01	.3239-01	.3239-01	.9000	.6489-03	.7832-03	.4762	3.757	525.7
613	17500	45.000	441.00	.1126	.1364	.1364	.9000	.2723-02	.3298-02	1.969	15.08	536.7
613	17500	65.000	442.00	.1940-01	.2341-01	.2341-01	.9000	.4691-03	.5659-03	.3455	2.628	523.1
613	17500	90.000	443.00	.3590-02	.4327-02	.4327-02	.9000	.8680-04	.1046-03	.6416-01	.5023	520.5
613	27000	00000	444.00	.7994-02	.9640-02	.9640-02	.9000	.1933-03	.2331-03	.1425	1.172	522.1
613	27000	25.000	445.00	.3836-01	.4630-01	.4630-01	.9000	.9274-03	.1119-02	.6808	5.279	525.6
613	27000	45.000	446.00	.5849-01	.7065-01	.7065-01	.9000	.1414-02	.1708-02	1.036	8.309	527.5
613	27000	65.000	447.00	.1129-01	.1361-01	.1361-01	.9000	.2729-03	.3292-03	.2012	1.630	522.4
613	27000	90.000	448.00	.2879-02	.3470-02	.3470-02	.9000	.6960-04	.8389-04	.5146-01	.4115	520.3
613	43800	00000	449.00	.6058-02	.7305-02	.7305-02	.9000	.1465-03	.1766-03	.1081	.8454	521.9
613	43800	25.000	450.00	.1526-01	.1841-01	.1841-01	.9000	.3690-03	.4451-03	.2720	2.105	522.6
613	43900	45.000	451.00	.1312-01	.1583-01	.1583-01	.9000	.3173-03	.3827-03	.2339	1.842	522.5
613	43900	65.000	452.00	.7606-02	.9174-02	.9174-02	.9000	.1839-03	.2218-03	.1356	1.035	522.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2979

OH84B 60-0 SSME NOZZLE

(R4UY40)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
613	43800	90 000	453 00	2471 02	.2979-02	.2979-02	9000	5974-04	7202-04	.4414-01	.3420	520.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2980

OH84B 60-0 SSME NOZZLE

(R4U40)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.003    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 0003    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
595	2.001	7.980	40.02	.1392-01	435.8	1304.	94.91	.4537-01	2.022	3811.	.1290-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
595	3508-01	2859-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZG MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
595	88000-01	315.00	432.00	1673-02	.2008-02	.2008-02	.9000	5867-04	.7045-04	.4577-01	.3566	523.5
595	88000-01	00000	433.00	9938-02	.1193-01	.1193-01	9000	.3486-03	.4187-03	.2717	2.052	524.3
595	88000-01	25.000	434.00	8635-01	1041	.1041	9000	.3029-02	.3652-02	2.315	18.14	539.4
595	88000-01	45.000	435.00	7757-01	9355-01	.9355-01	.9000	2721-02	.3262-02	2.078	15.62	540.2
595	88000-01	65.000	436.00	2549-01	3064-01	.3064-01	.9000	8942-03	.1075-02	.6932	5.224	528.4
595	88000-01	90.000	437.00	.5104-02	6128-02	.6128-02	.9000	1791-03	.2150-03	.1397	1.077	523.4
595	88000-01	135.00	438.00	2408-02	2890-02	.2890-02	.9000	.8449-04	.1014-03	6604-01	4846	522.0
595	.17500	.00000	439.00	9820-02	1180-01	.1180-01	.9000	3445-03	.4138-03	.2681	2.017	525.4
595	17500	25.000	440.00	3089-01	3715-01	.3715-01	.9000	1084-02	.1303-02	8382	6.599	530.1
595	17500	45.000	441.00	5572-01	6712-01	.6712-01	.9000	.1955-02	.2355-02	1.500	11.49	536.2
595	17500	65.000	442.00	2026-01	2436-01	.2436-01	.9000	.7109-03	.8546-03	5513	4.183	528.1
595	17500	90.000	443.00	4857-02	5831-02	.5831-02	9000	.1704-03	.2046-03	1329	1.039	523.4
595	27000	00000	444.00	7252-02	8710-02	.8710-02	9000	2544-03	.3056-03	.1982	1.627	524.6
595	27000	25.000	445.00	2434-01	2925-01	.2925-01	.9000	.8538-03	.1026-02	6626	5.133	527.6
595	27000	45.000	446.00	3155-01	.3795-01	.3795-01	9000	.1107-02	.1331-02	.8556	6.854	530.6
595	27000	65.000	447.00	1312-01	.1577-01	.1577-01	.9000	4604-03	.5532-03	3578	2.893	526.6
595	27000	90.000	448.00	5003-02	.6007-02	.6007-02	.9000	.1755-03	.2107-03	.1369	1.093	523.7
595	.43800	00000	449.00	4127-02	.4955-02	.4955-02	9000	.1448-03	.1738-03	.1129	.8821	524.0
595	.43800	25.000	450.00	8517-02	.1023-01	.1023-01	.9000	2988-03	.3588-03	.2328	1.800	524.5
595	.43800	45.000	451.00	1111-01	.1335-01	.1335-01	.9000	.3898-03	.4682-03	3034	2.386	525.3
595	.43800	65.000	452.00	.1022-01	.1240-01	.1240-01	9000	.3622-03	.4351-03	.2817	2.147	525.8



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2981

OH84B 60-0 SSME NOZZLE

(R4UY40)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
595	43800	90.000	453.00	.5266-02	.6323-02	.6323-02	.9000	.1847-03	.2218-03	.1441	1.115	523.7

DATE 23 FEB 80

OH64B MODEL 60-0 IN THE AEDC VKI HYPersonic TUNNEL

PAGE 2982

OH64B 60-0 SSME NOZZLE

(R4UY40)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 0000  
 BOFLAP = 0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
577	3.019	7.990	40.06	6989-02	670.3	13.8	95.71	.6922-01	3.093	3832.	.1952-02	.7701-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (P) = 3175
577	4347-01	2335-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
577	88000-01	315.00	422.00	9176-03	1102-02	1102-02	.9000	.3989-04	4792-04	.3135-01	.2432	531.7
577	88000-01	00000	433.00	7215-02	8671-02	8671-02	.9000	3136-03	3769-03	2461	1.850	533.1
577	88000-01	25.000	434.00	4892-01	5895-01	5895-01	.9000	2127-02	2563-02	1.647	12.88	543.1
577	88000-01	45.000	435.00	1036	.1253	.1253	.9000	4505-02	5448-02	3.427	25.54	556.9
577	88000-01	65.000	436.00	3286-01	3955-01	3955-01	.9000	1428-02	1719-02	1.113	8.347	538.3
577	88000-01	90.000	437.00	5218-02	6271-02	6271-02	.9000	2268-03	2726-03	1.779	1.365	533.2
577	88000-01	135.00	438.00	1660-02	1994-02	1994-02	.9000	7215-04	8669-04	5670-01	.4140	531.9
577	17500	00000	439.00	6945-02	8348-02	8348-02	.9000	3019-03	3629-03	2366	1.772	534.0
577	17500	25.000	440.00	1714.01	2062-01	2062-01	.9000	.7452-03	8963-03	5821	4.568	536.5
577	17500	45.000	441.00	7195-01	8674-01	8674-01	.9000	3123-02	3771-02	2.398	18.24	550.0
577	17500	65.000	442.00	2909-01	3503-01	3503-01	.9000	1265-02	1523-02	9837	7.419	539.9
577	17500	90.000	443.00	5114-02	6147-02	6147-02	.9000	2223-03	2672-03	1744	1.357	533.2
577	27000	00000	444.00	5219-02	6272-02	6272-02	.9000	2269-03	2727-03	1780	1.455	533.0
577	27000	25.000	445.00	1618-01	1946-01	1946-01	.9000	7034-03	8459-03	5504	4.247	535.3
577	27000	45.000	446.00	4366-01	5260-01	5260-01	.9000	.1898-02	2287-02	1.471	11.71	542.7
577	27000	65.000	447.00	1876-01	2256-01	2256-01	.9000	.8153-03	9808-03	6366	5.120	536.9
577	27000	90.000	448.00	4409-02	5299-02	5299-02	.9000	1917-03	2303-03	1504	1.195	532.9
577	43800	00000	449.00	3337-02	4010-02	4010-02	.9000	1451-03	1743-03	1139	.8866	532.2
577	43800	25.000	450.00	7376-02	8865-02	8865-02	.9000	3206-03	3854-03	2515	1.936	533.2
577	43800	45.000	451.00	1529-01	1839-01	1839-01	.9000	6648-03	7995-03	5201	4.070	535.3
577	43800	65.000	452.00	1310-01	1576-01	1576-01	.9000	.5696-03	6850-03	.4454	3.378	535.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2993

OH84B 60-0 SSME NOZZLE

(R40Y40)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
577	43800	90 000	453 00	4048-02	4866-02	4866-02	9000	.1760-03	.2115-03	.4380	1.062	533 6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2984

OH84B 60-0 SSME NOZZLE

(R4UY41)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
625	5055	7.900	39.95	1729-01	100.1	1216.	92.40	1112-01	4859	3723.	.3249-03	.7435-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0.75
625	1705-01	5691-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
625	88000-01	315.00	432.00	2785-02	3366-02	.3366-02	.9000	.4752-04	5743-04	.3430-01	.2672	523.8
625	88000-01	00000	433.00	3848-02	4649-02	.4649-02	.9000	.6565-04	.7932-04	.4744-01	.3584	523.1
625	88000-01	25.000	434.00	.246-01	.1506-01	.1506-01	.9000	.2126-03	.2570-03	1533	1.211	524.4
625	88000-01	45.000	435.00	4741-01	5735-01	.5735-01	.9000	.8089-03	9784-03	5813	4.399	527.0
625	88000-01	65.000	436.00	2693-01	.3255-01	.3255-01	.9000	.4595-03	5554-03	.3315	2.503	524.2
625	88000-01	90.000	437.00	.4518-02	5459-02	.5459-02	.9000	.7709-04	9313-04	5574-01	.4299	522.6
625	88000-01	135.00	438.00	2288-02	2763-02	.2763-02	.9000	.3903-04	4714-04	.2825-01	2073	521.9
625	17500	00000	439.00	3806-02	4599-02	.4599-02	.9000	.6493-04	7847-04	.4690-01	.3531	523.4
625	17500	25.000	440.00	8027-02	9701-02	.9701-02	.9000	1369-03	1655-03	9881-01	.7803	524.1
625	17500	45.000	441.00	.4050-01	.4901-01	.4901-01	.9000	.6910-03	.8361-03	4960	3.815	527.9
625	17500	65.000	442.00	.2409-01	2912-01	.2912-01	.9000	.4110-03	4969-03	2965	2.254	524.4
625	17500	90.000	443.00	4679-02	5652-02	.5652-02	.9000	.7982-04	.9643-04	.5773-01	4515	522.5
625	27000	00000	444.00	.3528-02	.4263-02	.4263-02	.9000	.6019.04	7273-04	4346-01	.3573	523.3
625	27000	25.000	445.00	.1541-01	.1863-01	.1863-01	.9000	.2629-03	3178-03	1896	1.472	524.3
625	27000	45.000	446.00	.4433-01	.5362-01	.5362-01	.9000	.7564-03	9148-03	.5440	4.367	526.5
625	27000	65.000	447.00	1389-01	1678-01	.1678-01	.9000	2369-03	2863-03	1711	1.385	523.7
625	27000	90.000	448.00	3815-02	4609-02	.4609-02	.9000	6509-04	7863-04	.4709-01	.3762	522.2
625	43800	00000	449.00	3640-02	.4398-02	.4398-02	.9000	.6210-04	7504-04	.4487-01	.3508	523.2
625	43800	25.000	450.00	1806-01	2184-01	.2184-01	.9000	.3082-03	3725-03	.2223	1.719	524.4
625	43800	45.000	451.00	2793-01	3376-01	.3376-01	.9000	.4765-03	.5759-03	.3436	2.703	524.5
625	43800	65.000	452.00	1129-01	.1365-01	.1365-01	.9000	.1927-03	.2329-03	.1390	1.061	524.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2985

OH84B 60-0 SSME NOZZLE

(R4UY41)

RUN NUMBER	ZO MS	PHI	T/C NO	4/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
525	43800	90.000	453 00	2792-02	.3373-02	.3373-02	.9000	4764-04	5755-04	.3446-01	.2668	522.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2986

OH84B 60-0 SSME NOZZLE

(R4UY41)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
611	9267	7.940	39.96	.1384-01	204.6	1265	92.93	.2201-01	.9711	3752.	.6391-03	.7478-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
611	2418-01	.4064-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
611	88000-01	315.00	432.00	2020-02	.2433-02	2433-02	.9000	4885-04	.5883-04	.3641-01	2843	519.2
611	88000-01	00000	433.00	7431-02	8950-02	8950-02	.9000	1797-03	.2164-03	1339	1.013	519.6
611	88000-01	25.000	434.00	.3493-01	.4212-01	4212-01	.9000	8446-03	1019-02	.6253	4.937	524.4
611	88000-01	45.000	435.00	.1100	.1330	.1330	.9000	2661-02	.3217-02	1.948	14.69	532.8
611	88000-01	65.000	436.00	.1711-01	.2061-01	2061-01	.9000	.4138-03	.4985-03	.3081	2.332	520.1
611	88000-01	90.000	437.00	.3323-02	.4001-02	4001-02	.9000	.8036-04	.9675-04	.5998-01	.4637	518.2
611	88000-01	135.00	438.00	.2038-02	.2453-02	2453-02	.9000	.4929-04	.5933-04	.3684-01	.2710	517.3
611	17500	00000	439.00	.8108-02	.9770-02	9770-02	.9000	.1961-03	.2363-03	.1458	1.099	521.0
611	17500	25.000	440.00	.1685-01	.2031-01	2031-01	.9000	.4075-03	.4911-03	.3027	2.393	521.8
611	17500	45.000	441.00	.9015-01	.1090	1090	.9000	.2180-02	.2635-02	1.597	12.26	532.0
611	17500	65.000	442.00	.1587-01	.1912-01	1912-01	.9000	.3838-03	.4623-03	2857	2.176	520.3
611	17500	90.000	443.00	.2898-02	.3489-02	3489-02	.9000	.7008-04	.8438-04	.5231-01	.4100	518.2
611	27000	00000	444.00	.7149-02	.8612-02	8612-02	.9000	.1729-03	.2083-03	1286	1.059	520.6
611	27000	25.000	445.00	.3337-01	.4023-01	4023-01	.9000	.8070-03	.9729-03	5987	4.649	522.8
611	27000	45.000	446.00	.5095-01	.6147-01	6147-01	.9000	1232-02	1487-02	.9104	7.311	525.8
611	27000	65.000	447.00	.9656-02	.1163-01	1163-01	.9000	.2335-03	.2813-03	.1739	1.411	519.8
611	27000	90.000	448.00	.2382-02	.2868-02	2868-02	.9000	.5760-04	.6935-04	.4301-01	.3443	518.1
611	43800	00000	449.00	.5672-02	.6832-02	6832-02	.9000	.1372-03	.1652-03	.1021	.7999	520.0
611	43800	25.000	450.00	.2094-01	.2524-01	2524-01	.9000	.5065-03	.6104-03	.3763	2.914	521.7
611	43800	45.000	451.00	.1480-01	.1783-01	1783-01	.9000	.3579-03	.4312-03	2663	2.099	520.7
611	43800	65.000	452.00	.6388-02	.7694-02	7694-02	.9000	.1545-03	.1861-03	.1150	8794	520.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2987

OH84B 60-0 SSME NOZZLE

(R4UY41)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
611	43800	90 000	453 00	2149-02	.2588-02	2588-02	.9000	.5197-04	.6257-04	.3877-01	.3007	518.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2988

OH84B 60-0 SSME NOZZLE

(R4UY41)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
597	2.013	7.980	40.02	1392-01	434.8	1297.	94.40	.4526-01	2.018	3801.	.1294-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0179
597	350.-01	2063-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
597	88000-01	315 00	432 00	1899-02	2279-02	2279-02	.9000	6647-04	.7979-04	.5164-01	.4031	519.7
597	88000-01	00000	433 00	8379-02	1006-01	.1006-01	.9000	.2933-03	3522-03	.2276	1.722	520.8
597	88000-01	25 000	434 00	6905-01	8318-01	.8318-01	.9000	.2417-02	.2912-02	1.845	14.50	533.5
597	88000-01	45 000	435 00	5677-01	.6832-01	.6832-01	.9000	.1987-02	.2392-02	1.524	11.51	529.8
597	88000-01	65 000	436 00	.2678-01	3218-01	3218-01	.9000	.9375-03	.1127-02	.7240	5.467	524.4
597	89000-01	90 000	437 00	5102-02	6125-02	6125-02	.9000	.1786-03	.2144-03	.1388	1.072	519.7
597	88000-01	135 00	438 00	2402-02	2883-02	2883-02	.9000	.8411-04	1009-03	.6545-01	.4812	518.5
597	17500	.00000	439 00	.8509-02	1022-01	1022-01	.9000	.2979-03	3578-03	.2308	1.739	521.9
597	.17500	25 000	440 00	2502-01	3007-01	3007-01	.9000	.8759-03	1053-02	.6758	5.334	525.1
597	17500	45 000	441 00	3838-01	4616-01	.4616-01	.9000	.1344-02	.1616-02	1.034	7.955	527.3
597	17500	65 000	442 00	1988-01	.2389-01	.2389-01	.9000	.6959-03	.8362-03	.5375	4.087	524.2
597	17500	90 000	443 00	4990-02	5991-02	5991-02	.9000	.1747-03	.2097-03	1.356	1.062	520.3
597	27000	00000	444 00	6020-02	7229-02	7229-02	.9000	.2108-03	.2531-03	1.635	1.345	521.0
597	27000	25 000	445 00	.1942-01	.2333-01	2333-01	.9000	.6798-03	.8167-03	.5258	4.083	523.2
597	27000	45 000	446 00	2206-01	2651-01	2651-01	.9000	.7723-03	.9281-03	.5964	4.793	524.4
597	27000	65 000	447 00	1091-01	1310-01	.1310-01	.9000	.3818-03	.4586-03	.2958	2.397	522.1
597	27000	90 000	448 00	3927-02	.4714-02	4714-02	.9000	.1375-03	.1650-03	.1068	.8542	519.8
597	43800	00000	449 00	.3731-02	4479-02	.4479-02	.9000	.1306-03	.1568-03	1.014	.7937	520.4
597	43800	25 000	450 00	7140-02	8573-02	8573-02	.9000	.2500-03	3001-03	1.939	1.502	520.8
597	43800	45 000	451 00	9136-02	1097-01	1097-01	.9000	.3199-03	.3841-03	.2480	1.954	521.3
597	43800	65 000	452 00	6965-02	8364-02	8364-02	.9000	.2438-03	.2928-03	.1890	1.444	521.6



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

PAGE 2989

OH84B 60-0 SSME NOZZLE

(R4UY41)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
597	43800	90 000	453 00	3108-02	.3731-02	3731-02	.9000	1088-03	1306-03	.8450-01	6548	520 1

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2990

OH84B 60-O SSME NOZZLE

(R4UY41)

SSMF NOZZLE

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 5.000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
583	2 999	7 990	40 05	.1396-01	671.1	1325	96.21	.6930-01	3.097	3842.	.1944-02	.7742-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
583	.4354-01	.2341-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
583	88000-01	315 00	432 00	2654-02	3179-02	.3179-02	9000	.1155-03	.1384-03	.9261-01	.7216	523.0
583	88000-01	00000	433 00	1204-01	1443-01	.1443-01	9000	5241-03	6281-03	.4193	3.166	524.6
583	88000-01	25 000	434 00	1069	1289	1289	9000	4653-02	.5612-02	3 607	28.12	549.4
583	88000-01	45.000	435 00	.1102	.1329	1329	9000	4799-02	.5788-02	3 721	27 83	549.4
583	88000-01	65 000	436 00	4382-01	5261-01	.5261-01	9000	1908-02	2291-02	1 513	11.38	531.7
583	88000-01	90 000	437 00	7435-02	8908-02	8908-02	9000	.3237-03	3878-03	.2593	1.999	523 6
583	88000-01	135 00	438 00	2221-02	2659-02	2659-02	9000	9670-04	1158-03	.7772-01	.5707	520.9
583	17500	00000	439 00	.1179-01	1413-01	1413-0	9000	5131-03	.6151-03	.4099	3 082	525.9
583	17500	25 000	440 00	4073-01	4892-01	4892-0	9000	1773-02	2130-02	1 404	11.04	532.9
583	17500	45 000	441 00	.7880-01	.9487-01	9487-0	9000	3431-02	4130-02	2 693	20 49	542 6
583	17500	65 000	442 00	3784-01	4543-01	4543-0	9000	1647-02	.1978-02	1 305	9 883	532.2
583	17500	90 000	443 00	.7186-02	8610-02	.8610-02	9000	3129-03	3749-03	2506	1 958	523.8
583	27000	00000	444 00	.8103-02	.9710-02	9710-02	9000	.3528-03	4227-03	2823	2 319	524.4
583	27000	25 000	445 00	3110-01	3731-01	3731-01	9000	1354-02	1624-02	1 077	8.342	528 8
583	27000	45 000	446 00	4718-01	5668-01	5668-01	9000	2054-02	2468-02	1 623	12 98	534 4
583	27000	65.000	447 00	2695-01	3234-01	.3234-0	9000	.1173-02	1408-02	9325	7 527	529.9
583	27000	90 000	448 00	.6697-02	8023-02	8023-02	9000	.2916-03	.3493-03	2337	1 866	523 2
583	43800	00000	449 00	4271-02	5117-02	.5117-02	9000	1859-03	.2228-03	.1491	1.165	523.0
583	43800	25 000	450 00	9845-02	.1180-01	1180-0	9000	.4286-03	.5136-03	3430	2 652	524 4
583	43800	45 000	451 00	1830-01	2194-01	2194-0	9000	7966-03	9553-03	.6355	4.904	526.9
583	43800	65 000	452 00	1912-01	2294-01	.2294-0	9000	8326-03	.9986-03	6635	5 052	527 8

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0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 2991

0484B 60-0 SSME NOZZLE

(R4UY41)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
583	43800	90 000	453 00	6085-02	.7290-02	7290-02	9000	.2649-03	.3174-03	.2122	1 641	523 6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY42)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 8.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
619	5067	7.900	39 95	.1383-01	99 45	1239.	91.88	.1105-01	.4829	3712.	.3247-03	.7393-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
619	1699-01	5689-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/R FT2SEC	DTWDT DEG R /SEC	TW DEG. R
619	88000-01	315 00	432 00	.2894-02	3499-02	3499-02	.9000	.4917-04	.5945-04	.3522-01	.2745	522.3
619	88000-01	.00000	433 00	.2677-02	3236-02	.3236-02	.9000	.4549-04	.5499-04	.3261-01	.2465	521.8
619	88000-01	25.000	434 00	.7513-02	9086-02	9086-02	.9000	.1276-03	.1544-03	.9132-01	.7214	523.3
619	88000-01	45 000	435 00	.2379-01	2878-01	2878-01	.9000	.4043-03	.4891-03	.2888	2 198	524.3
619	88000-01	65 000	436 00	.4021-01	4865-01	.4865-01	.9000	.6833-03	.8267-03	.4879	3 683	524.7
619	88000-01	90 000	437 00	.5761-02	6964-02	.6964-02	.9000	.9788-04	.1183-03	.7017-01	.5414	521.8
619	88000-01	135 00	438 00	.2710-02	3274-02	.3274-02	.9000	.4604-04	.5564-04	.3306-01	.2427	520.7
619	17500	.00000	439 00	.2812-02	3400-02	3400-02	.9000	.4778-04	.5777-04	.3423-01	.2579	522.2
619	17500	25 000	440 00	.4700-02	5683-02	.5683-02	.9000	.7986-04	.9656-04	.5718-01	.4519	522.6
619	17500	45 000	441 00	.2078-01	2514-01	.2514-01	.9000	.3531-03	.4272-03	.2523	1 944	524.3
619	17500	65 000	442 00	.3372-01	4080-01	.4080-01	.9000	.5729-03	.6932-03	.4088	3 107	525.1
619	17500	90 000	443 00	.5755-02	6957-02	.6957-02	.9000	.9779-04	.1182-03	.7010-01	.5485	521.8
619	27000	.00000	444 00	.2541-02	3072-02	.3072-02	.9000	.4318-04	.5220-04	.3094-01	.2544	522.1
619	27000	25 000	445 00	.8841-02	1069-01	.1069-01	.9000	.1502-03	.1817-03	.1075	.8347	523.0
619	27000	45 000	446 00	.2717-01	.3287-01	.3287-01	.9000	.4616-03	.5584-03	.3297	2 649	524.5
619	27000	65 000	447 00	.2219-01	.2683-01	.2683-01	.9000	.3770-03	.4559-03	.2697	2.184	523.3
619	27000	90 000	448 00	.4905-02	.5929-02	.5929-02	.9000	.8335-04	.1007-03	.5978-01	.4777	521.4
619	43800	.00000	449 00	.3263-02	.3944-02	.3944-02	.9000	.5544-04	.6702-04	.3973-01	.3108	521.9
619	43800	25 000	450 00	.1305-01	.1578-01	.1578-01	.9000	.2217-03	.2681-03	.1588	1 229	522.6
619	43800	45 000	451 00	.3735-01	.4519-01	.4519-01	.9000	.6346-03	.7678-03	.4533	3 566	524.4
619	43800	65 000	452 00	.1822-01	.2204-01	.2204-01	.9000	.3096-03	.3744-03	.2214	1 689	523.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY42)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
619	43800	90.000	453 00	.3752-02	4536-02	.4536-02	.9000	.6375-04	.7706-04	.4570-01	.3538	521.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2994

OH84B 60-0 SSME NOZZLE

(R4UY42)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 8.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
617	1.002	7.940	39.97	1731-01	206.2	1267.	93.08	.2218-01	.9787	3755.	.6431-03	.7490-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
617	2428-01	.4052-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
617	88000-01	315.00	432.00	2031-02	2446-02	2446-01	9000	4932-04	.5941-04	3678-01	2869	520.8
617	.88000-01	00000	433.00	5174-02	6233-02	.6233-02	.9000	.1257-03	.1514-03	.9370-01	.7088	521.0
617	.88000-01	25.000	434.00	.1983-01	2392-01	.2392-01	.9000	.4817-03	.5808-03	.3574	2.822	524.6
617	.88000-01	45.000	435.00	9015-01	1089	1089	.9000	2189-02	.2645-02	1.610	12.16	531.1
617	.88000-01	65.000	436.00	2632-01	.3171-01	3171-01	.9000	6391-03	.7702-03	.4757	3.595	522.4
617	88000-01	90.000	437.00	3602-02	4338-02	.4338-02	.9000	8748-04	1053-03	6536-01	.5049	519.5
617	88000-01	135.00	438.00	.1902-02	2290-02	2290-02	.9000	.4619-04	5561-04	3456-01	2540	518.6
617	17500	00000	439.00	5539-02	6674-02	6674-01	.9000	1345-03	1621-03	.1002	7554	521.5
617	17500	25.000	440.00	1189-01	1434-01	.1434-01	.9000	2888-03	3481-03	.2149	1.698	522.8
617	17500	45.000	441.00	.7700-01	.9302-01	9302-01	.9000	.1870-02	.2259-02	1.375	10.56	531.3
617	.17500	65.000	442.00	.2387-01	.2876-01	.2876-01	.9000	5796-03	6985-03	.4311	3.280	522.8
617	17500	90.000	443.00	.3384-02	4075-02	.4075-02	.9000	8218-04	9896-04	6140-01	4809	519.5
617	27000	00000	444.00	5398-02	6503-02	6503-02	.9000	.1311-03	1579-03	9769-01	8034	521.5
617	27000	25.000	445.00	2603-01	.3138-01	.3138-01	.9000	.6322-03	7621-03	.4697	3.646	523.7
617	27000	45.000	446.00	6299-01	.7602-01	7602-01	.9000	.1530-02	1846-02	1.130	9.068	527.7
617	27000	65.000	447.00	1346-01	1622-01	.1622-01	.9000	3269-03	3938-03	2435	1.974	521.7
617	27000	90.000	448.00	.2707-02	.3260-02	.3260-02	.9000	6575-04	7916-04	.4913-01	3931	519.3
617	43800	.00000	449.00	.6250-02	.7529-02	7529-02	.9000	.1518-03	.1828-03	.1131	8849	521.5
617	.43800	25.000	450.00	.2780-01	.3352-01	.3352-01	.9000	.6752-03	8141-03	5014	3.878	524.0
617	.43800	45.000	451.00	.2738-01	.3300-01	.3300-01	.9000	.6649-03	.8015-03	.4942	3.890	523.4
617	.43800	65.000	452.00	.8509-02	.1025-01	.1025-01	.9000	.2066-03	.2489-03	.1541	1.177	521.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY42)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TH DEG. R
617	43800	90 000	453.00	.1959-02	.2359-02	2359-02	.9000	.4757-04	.5728-04	.3553-01	.2754	519.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY42)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.030    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 8.030    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
591	1.988	7.980	40.01	.1391-01	433.9	1306.	95.05	.4517-01	2.013	3814.	1283-02	.7649-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF (F) = 0175
591	3501-01	2878-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
591	.88000-01	315.00	432.00	2304-02	2764-02	.2764-C2	.9000	.8067-04	.9678-04	6326-01	.4933	521.5
591	.88000-01	000.00	433.00	.1282-01	.1539-01	.1539-C1	.9000	.4490-03	.5390-03	3513	2.655	523.2
591	.88000-01	25.000	434.00	.1122	.1355	.1355	.9000	.3930-02	.4743-02	2.993	23.40	544.1
591	.88000-01	45.000	435.00	.1215	.1467	.1467	.9000	.4254-02	.5135-02	3.237	24.28	544.7
591	.88000-01	65.000	436.00	.2950-01	.3545-01	.3545-C1	.9000	.1033-02	.1241-02	8034	6.056	527.8
591	.88000-01	90.000	437.00	.4665-02	.5600-02	.5600-C2	.9000	.1633-03	.1961-03	.1278	9856	523.2
591	.88000-01	135.00	438.00	.1991-02	.2389-02	.2389-C2	.9000	.6972-04	.8364-04	.5468-01	.4014	521.4
591	.17500	000.00	439.00	.1278-01	.1535-01	.1535-C1	.9000	.4476-03	.5374-03	3497	2.632	524.4
591	.17500	25.000	440.00	.4660-01	.5606-01	.5606-C1	.9000	.1632-02	.1963-02	1.263	9.934	531.7
591	.17500	45.000	441.00	.8808-01	.1062	.1062	.9000	.3084-02	.3718-02	2.363	18.07	539.3
591	.17500	65.000	442.00	.2273-01	.2731-01	.2731-C1	.9000	.7959-03	.9563-03	6194	4.701	527.5
591	.17500	90.000	443.00	.4484-02	.5382-02	.5382-C2	.9000	.1570-03	.1884-03	.1229	9607	523.0
591	.27000	000.00	444.00	.9070-02	.1089-01	.1089-C1	.9000	.3176-03	.3812-03	2484	2.041	523.4
591	.27000	25.000	445.00	.3806-01	.4574-01	.4574-C1	.9000	.1336-02	.1601-02	1.036	8.025	528.0
591	.27000	45.000	446.00	.4719-01	.5676-01	.5676-C1	.9000	.1652-02	.1987-02	1.280	10.26	530.9
591	.27000	65.000	447.00	.1289-01	.1548-01	.1548-C1	.9000	.4513-03	.5420-03	.3522	2.850	525.2
591	.27000	90.000	448.00	.3816-02	.4580-02	.4580-C2	.9000	.1336-03	.1604-03	.1046	8356	522.6
591	.43800	000.00	449.00	.5749-02	.6899-02	.6899-C2	.9000	.2013-03	.2416-03	.1577	1.234	522.1
591	.43800	25.000	450.00	.1273-01	.1528-01	.1528-C1	.9000	.4457-03	.5350-03	.3487	2.698	523.4
591	.43800	45.000	451.00	.1560-01	.1873-01	.1873-C1	.9000	.5463-03	.6559-03	.4267	3.357	524.5
591	.43800	65.000	452.00	.1005-01	.1206-01	.1206-C1	.9000	.3517-03	.4223-03	.2748	2.096	524.4



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY42)

RUN NUMBER	Z0 MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
591	.43800	90 000	453 00	4038-02	.4846-02	4846-C2	.9000	1414-03	.1697-03	.1106	.8561	523.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 2998

OH84B 60-0 SSME NOZZLE

(R4UY42)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 8.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	T DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
589	3.003	7.990	40.07	1748-01	673.7	1327.	96.36	.6957-01	3.109	3845.	.1948-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
589	4363-01	2339-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZC MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/R FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
589	88000-01	315.00	432.00	3322-02	.3979-02	.3979-02	.9000	1449-03	1736-03	1165	.9073	523.1
589	88000-01	.00000	433.00	1556-01	.1864-01	.1864-01	.9000	6787-03	8133-03	5442	4.108	524.9
589	88000-01	25.000	434.00	.207	.1457	.1457	.9000	.5266-02	6359-02	4.062	31.57	555.3
589	88000-01	45.000	435.00	1703	2060	2060	.9000	7433-02	8988-02	5.697	42.39	560.2
589	88000-01	65.000	436.00	4512-01	.5417-01	.5417-01	.9000	.1969-02	2364-02	1.564	11.76	532.3
589	88000-01	90.000	437.00	.6778-02	8119-02	.8119-02	.9000	.2957-03	3542-03	.2376	1.832	523.3
589	88000-01	135.00	438.00	.2339-02	2800-02	.2800-02	.9000	.1021-03	1222-03	8224-01	6039	520.8
589	17500	.00000	439.00	1550-01	1858-01	.1858-01	.9000	.6761-03	8105-03	5410	4.067	526.5
589	17500	25.000	440.00	.5385-01	6474-01	.6474-01	.9000	.2349-02	2825-02	1.852	14.52	538.2
589	17500	45.000	441.00	1251	1510	.1510	.9000	.5458-02	6588-02	4.219	32.03	553.7
589	17500	65.000	442.00	3981-01	4780-01	.4780-01	.9000	.1737-02	2086-02	1.379	10.44	532.7
589	17500	90.000	443.00	6664-02	7982-02	.7982-02	.9000	.2908-03	3483-03	2335	1.826	523.4
589	.27000	.00000	444.00	1044-01	1250-01	.1250-01	.9000	.4553-03	5456-03	3651	2.998	524.8
589	27000	25.000	445.00	.4832-01	5802-01	.5802-01	.9000	.2108-02	.2531-02	1.673	12.92	533.1
589	27000	45.000	446.00	7098-01	8534-01	.8534-01	.9000	.3097-02	3724-02	2.440	19.47	538.6
589	.27000	65.000	447.00	3046-01	3655-01	.3655-01	.9000	.1329-02	.1595-02	1.059	8.552	529.7
589	.27000	90.000	448.00	.6635-02	.7947-02	.7947-02	.9000	.2895-03	3467-03	2327	1.858	523.0
589	43800	.00000	449.00	6550-02	7847-02	.7847-02	.9000	.2858-03	3424-03	2296	1.794	523.5
589	43800	25.000	450.00	1517-01	1818-01	.1818-01	.9000	.6619-03	7932-03	5304	4.100	525.3
589	.43800	45.000	451.00	2161-01	2591-01	.2591-01	.9000	.9429-03	.1131-02	7535	5.919	527.6
589	43800	65.000	452.00	2079-01	2493-01	.2493-01	.9000	.9072.03	1088-02	7244	5.515	528.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY42)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
588	43800	90 000	453 00	6333-02	.7587-02	7587-C2	9000	2763-03	3310-03	.2219	1.716	523.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3000

OH84B 60-0 SSME NOZZLE

(R4UY43)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 15.00 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
627	5147	7.900	39.95	.1383-01	101.4	1242.	92.10	.1127-01	.4923	3717.	.3302-03	.7411-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
627	1716-01	5643-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
627	.88000-01	315.00	432.00	.2944-02	.3558-02	.3558-02	.9000	.5052-04	.6107-04	.3632-01	.2830	522.8
627	.88000-01	.00000	433.00	.1925-02	.2327-02	.2327-02	.9000	.3305-04	.3994-04	.2379-01	.1799	521.8
627	.88000-01	25.000	434.00	.4033-02	.4876-02	.4876-02	.9000	.6923-04	.8368-04	.4976-01	.3932	522.9
627	.88000-01	45.000	435.00	.7729-02	.9346-02	.9346-02	.9000	.1327-03	.1604-03	.9523-01	.7217	523.8
627	.88000-01	65.000	436.00	.1285-01	.1554-01	.1554-01	.9000	.2206-03	.2666-03	.1585	1.198	522.9
627	.88000-01	90.000	437.00	.4469-02	.5401-02	.5401-02	.9000	.7671-04	.9269-04	.5524-01	.4263	521.5
627	.88000-01	135.00	438.00	.3100-02	.3745-02	.3745-02	.9000	.5321-04	.6428-04	.3835-01	.2816	521.0
627	.17500	.00000	439.00	.1570-02	.1898-02	.1898-02	.9000	.2695-04	.3257-04	.1940-01	.1461	522.1
627	.17500	25.000	440.00	.2774-02	.3352-02	.3352-02	.9000	.4760-04	.5753-04	.3424-01	.2706	522.3
627	.17500	45.000	441.00	.6811-02	.8235-02	.8235-02	.9000	.1169-03	.1413-03	.8395-01	.6472	523.5
627	.17500	65.000	442.00	.9917-02	.1199-01	.1199-01	.9000	.1702-03	.2058-03	.1223	.9298	523.4
627	.17500	90.000	443.00	.3992-02	.4824-02	.4824-02	.9000	.6852-04	.8279-04	.4935-01	.3861	521.4
627	.27000	.00000	444.00	.1510-02	.1824-02	.1824-02	.9000	.2591-04	.3131-04	.1865-01	.1533	522.0
627	.27000	25.000	445.00	.3573-02	.4318-02	.4318-02	.9000	.6132-04	.7411-04	.4411-01	.3426	522.4
627	.27000	45.000	446.00	.6392-02	.7728-02	.7728-02	.9000	.1097-03	.1326-03	.7881-01	.6337	523.4
627	.27000	65.000	447.00	.7409-02	.8955-02	.8955-02	.9000	.1272-03	.1537-03	.9143-01	.7408	522.6
627	.27000	90.000	448.00	.4092-02	.4944-02	.4944-02	.9000	.7022-04	.8485-04	.5059-01	.4043	521.3
627	.43800	.00000	449.00	.1421-02	.1717-02	.1717-02	.9000	.2439-04	.2948-04	.1756-01	.1373	521.9
627	.43800	25.000	450.00	.2726-02	.3294-02	.3294-02	.9000	.4678-04	.5654-04	.3368-01	.2607	521.9
627	.43800	45.000	451.00	.4747-02	.5738-02	.5738-02	.9000	.8148-04	.9848-04	.5861-01	.4616	522.3
627	.43800	65.000	452.00	.5954-02	.7197-02	.7197-02	.9000	.1022-03	.1235-03	.7349-01	.5611	522.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3001

OH84B 60-0 SSME NOZZLE

(R4UY43)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R; FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
627	43800	90.000	453.00	5948-02	7188-02	7188-(2	9000	.1021-03	.1234-03	.7349-01	.5690	521.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3002

OH84B 60-0 SSME NOZZLE

(R4UY43)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 15.00 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
609	1.024	7.940	39.98	.1386-01	209.1	1261.	92.64	.2249-01	.9925	3746.	6553-03	.7454-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175 4012-01
609	2443-01	

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
609	.88000-01	315.00	432.00	2690-02	3244-02	.3244-02	.9000	.6573-04	.7927-04	.4851-01	.3780	522.7
609	.88000-01	00000	433.00	2025-02	2441-02	.2441-02	.9000	.4947-04	.5966-04	.3654-01	.2762	522.1
609	.88000-01	25.000	434.00	8535-02	1030-01	.1030-01	.9000	.2085-03	.2517-03	.1533	1.210	525.5
609	.88000-01	45.000	435.00	3333-01	4026-01	.4026-01	.9000	.8145-03	.9837-03	.5967	4.513	528.0
609	.88000-01	65.000	436.00	3909-01	.4718-01	.4718-01	.9000	.9551-03	.1153-02	.7022	5.299	525.5
609	.88000-01	90.000	437.00	7269-02	8764-02	.8764-02	.9000	.1776-03	.2142-03	.1312	1.012	521.9
609	.88000-01	135.00	438.00	1817-02	2190-02	.2190-02	.9000	.4439-04	.5350-04	.3287-01	.2414	520.3
609	.17500	00000	439.00	2009-02	2423-02	.2423-02	.9000	.4910-04	.5921-04	.3625-01	.2730	522.5
609	.17500	25.000	440.00	4568-02	5511-02	.5511-02	.9000	.1116-03	.1347-03	.8227-01	.6497	523.7
609	.17500	45.000	441.00	2348-01	.2835-01	.2835-01	.9000	.5737-03	.6928-03	.4207	3.237	527.4
609	.17500	65.000	442.00	.3171-01	.3828-01	.3828-01	.9000	.7748-03	.9352-03	.5694	4.326	525.7
609	.17500	90.000	443.00	7156-02	.8629-02	.8629-02	.9000	.1749-03	.2108-03	.1291	1.010	522.1
609	.27000	00000	444.00	1854-02	.2236-02	.2236-02	.9000	.4531-04	.5464-04	.3345-01	.2750	522.4
609	.27000	25.000	445.00	6344-02	.7654-02	.7654-02	.9000	.1550-03	.1870-03	.1142	.8860	524.1
609	.27000	45.000	446.00	2102-01	2537-01	.2537-01	.9000	.5136-03	.6199-03	.3775	3.032	525.6
609	.27000	65.000	447.00	2083-01	2514-01	.2514-01	.9000	.5091-03	.6142-03	.3750	3.036	524.1
609	.27000	90.000	448.00	.6305-02	.7602-02	.7602-02	.9000	.1541-03	.1858-03	.1138	.9097	521.7
609	.43800	00000	449.00	1885-02	.2274-02	.2274-02	.9000	.4607-04	.5555-04	.3402-01	.2661	522.3
609	.43800	25.000	450.00	.6176-02	.7450-02	.7450-02	.9000	.1509-03	.1820-03	.1113	.8611	523.2
609	.43800	45.000	451.00	.1490-01	.1797-01	.1797-01	.9000	.1364-03	.1391-03	.2684	2.112	523.4
609	.43800	65.000	452.00	.1890-01	.2280-01	.2280-01	.9000	.14617-03	.15571-03	.3401	2.594	524.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3003

OH84B 60-0 SSME NOZZLE

(R4UY43)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.8 TAW/TI	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
609	43800	90.000	453.00	.7187-02	.8666-02	.8666-12	.9000	.1756-03	.2118-03	.1297	1.004	522.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3004

OH84B 60-0 SSME NOZZLE

(R4UY43)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 15 00    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
599	1.990	7.980	40.04	1744-01	435.0	1307.	95.13	.4528-01	2.019	3815.	1285-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
599	.3506-01	.2876-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/T)	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
599	88000-01	315.00	432.00	2095-02	.2512-02	.2512-12	9000	.7344-04	.8809-04	.5771-01	.4502	520.8
599	88000-01	00000	433.00	1609-01	.1931-01	1931-11	9000	.5641-03	.6770-03	.4421	3.341	523.0
599	88000-01	25.000	434.00	1290	1558	1558	9000	.4523-02	.5462-02	3.434	26.80	547.3
599	88000-01	45.000	435.00	1180	1422	1422	9000	.4136-02	.4988-02	3.164	23.76	541.6
599	88000-01	65.000	436.00	4136-01	.4968-01	4968-11	9000	.1450-02	.1742-02	1.130	8.524	527.1
599	88000-01	90.000	437.00	5334-02	.6399-02	6399-12	9000	.1870-03	.2244-03	1.469	1.134	521.0
599	88000-01	135.00	438.00	2451-02	.2939-02	2939-12	9000	.8595-04	.1030-03	.6769-01	.4975	519.1
599	17500	00000	439.00	1462-01	.1755-01	1755-11	9000	.5127-03	.6155-03	.4013	3.020	524.1
599	17500	25.000	440.00	5530-01	.6653-01	6653-11	9000	.1939-02	.2333-02	1.500	11.79	533.0
599	17500	45.000	441.00	8845-01	.1066	1066	9000	.3101-02	.3736-02	2.385	18.26	537.6
599	17500	65.000	442.00	.3211-01	.3858-01	3858-11	9000	.1126-02	.1353-02	.8767	6.652	527.9
599	17500	90.000	443.00	.5282-02	.6336-02	6336-12	9000	.1852-03	.2222-03	1.455	1.139	520.9
599	27000	00000	444.00	9338-02	.1120-01	1120-11	9000	.3274-03	.3929-03	2.568	2.111	522.3
599	27000	25.000	445.00	5057-01	.6079-01	6079-11	9000	.1773-02	.2131-02	1.378	10.66	529.5
599	27000	45.000	446.00	5349-01	.6432-01	6432-11	9000	.1876-02	.2255-02	1.455	11.66	530.8
599	27000	65.000	447.00	1731-01	.2078-01	2078-11	9000	.6069-03	.7286-03	.4749	3.844	524.2
599	27000	90.000	448.00	4304-02	.5162-02	5162-12	9000	.1509-03	.1810-03	1.186	9.483	520.6
599	.43800	00000	449.00	.5538-02	.6643-02	6643-12	9000	.1942-03	.2329-03	.1525	1.193	521.3
599	.43800	25.000	450.00	1761-01	.2114-01	2114-11	9000	.6176-03	.7413-03	.4833	3.738	524.1
599	.43800	45.000	451.00	.1881-01	.2258-01	2258-11	9000	.6595-03	.7917-03	.5163	4.063	523.9
599	.43800	65.000	452.00	.1243-01	.1492-01	1492-11	9000	.4358-03	.5231-03	.3413	2.605	523.4



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3005

OH84B 60-0 SSME NOZZLE

(R4UY43)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG. R
599	43800	90 000	453 00	4193-02	.5030-02	.5030-02	.9000	.1470-03	1764-03	1155	.8946	521 1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3006

OH84B 60-0 SSME NOZZLE

(R4UY43)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 15.00 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
585	2.982	7.990	40.06	1397-01	669.7	1328.	96.43	.6916-01	3.091	3846.	.1936-02	.7760-07
RUN NUMBER	HPEF BTU/ R FT2SEC	STN NO REF(R) = 0175										
585	4351-01	2347-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
585	88000-01	315.00	432.00	3101-02	.3715-02	.3715-02	.9000	.1349-03	.1616-03	.1083	.8434	524.6
585	88000-01	.00000	433.00	.1768-01	.2119-01	.2119-01	.9000	.7691-03	.9220-03	.6159	4.645	526.9
585	88000-01	25.000	434.00	.1288	.1556	.1556	.9000	.5604-02	.6770-02	4.319	33.55	556.9
585	88000-01	45.000	435.00	.1234	.1489	.1489	.9000	.5370-02	.6480-02	4.160	31.07	552.9
585	88000-01	65.000	436.00	4010-01	4813-01	4813-01	.9000	.1745-02	.2094-02	1.388	10.44	532.1
585	88000-01	90.000	437.00	5353-02	.6412-02	.6412-02	.9000	.2329-03	.2790-03	.1872	1.443	523.8
585	88000-01	135.00	438.00	2221-02	.2659-02	.2659-02	.9000	.9661-04	.1157-03	.7785-01	5713	521.9
585	17500	.00000	439.00	.1755-01	.2105-01	.2105-01	.9000	.7636-03	.9157-03	.6102	4.583	528.5
585	17500	25.000	440.00	.5956-01	.7164-01	.7164-01	.9000	.2591-02	.3117-02	2.040	15.97	540.5
585	17500	45.000	441.00	.9358-01	.1128	.1128	.9000	.4071-02	.4906-02	3.179	24.22	546.8
585	17500	65.000	442.00	.3309-01	.3972-01	.3972-01	.9000	.1440-02	.1728-02	1.145	8.671	532.2
585	17500	90.000	443.00	.5141-02	.6138-02	.6138-02	.9000	.2237-03	.2679-03	.1798	1.405	523.8
585	27000	.00000	444.00	.1163-01	.1394-01	.1394-01	.9000	.5059-03	.6064-03	4.053	3.325	526.5
585	27000	25.000	445.00	.5035-01	.6048-01	.6048-01	.9000	.2191-02	.2631-02	1.737	13.41	534.8
585	27000	45.000	446.00	.5488-01	.6596-01	.6596-01	.9000	.2388-02	.2870-02	1.888	15.07	537.2
585	27000	65.000	447.00	.1984-01	.2380-01	.2380-01	.9000	.8634-03	.1035-02	.6896	5.568	529.0
585	27000	90.000	448.00	.4708-02	.5639-02	.5639-02	.9000	.2049-03	.2454-03	.1647	1.315	523.5
585	43800	.00000	449.00	.6694-02	.8021-02	.8021-02	.9000	.2912-03	.3490-03	.2338	1.826	525.0
585	43800	25.000	450.00	.1593-01	.1910-01	.1910-01	.9000	.6931-03	.8309-03	.5549	4.285	527.1
585	43800	45.000	451.00	.1739-01	.2085-01	.2085-01	.9000	.7564-03	.9070-03	.6051	4.753	527.7
585	43800	65.000	452.00	.1346-01	.1614-01	.1614-01	.9000	.5857-03	.7022-03	.4686	3.569	527.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3007

OH84B 60-0 SSME NOZZLE

(R4UY43)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/T)	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
585	43800	90.000	453.00	4790-02	.5738-02	5738-12	.9000	.2084-03	.2496-03	.1674	1 295	524.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 300B

OH84B 60-0 SSME NOZZLE

(R4UY44)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.300 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 23.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
629	5153	7.900	39.96	.1729-01	101.8	1244.	92.25	.1131-01	.4940	3720.	.3309-03	.7423-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
629	1720-01	.5638-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
629	88000-01	315.00	432.00	.2796-02	.3379-02	.3379-02	.9000	.4809-04	.5812-04	.3465-01	.2700	523.1
629	88000-01	00000	433.00	.2559-02	.3092-02	.3092-02	.9000	.4401-04	.5318-04	.3174-01	.2400	522.3
629	.88000-01	25.000	434.00	.3728-02	.4506-02	.4506-02	.9000	.6412-04	.7749-04	.4622-01	.3652	522.9
629	.88000-01	45.000	435.00	.5761-02	.6963-02	.6963-02	.9000	.9909-04	.1198-03	.7140-01	.5413	523.1
629	.88000-01	65.000	436.00	.7339-02	.8869-02	.8869-02	.9000	.1262-03	.1525-03	.9097-01	.6874	522.9
629	.88000-01	90.000	437.00	.4011-02	.4846-02	.4846-02	.9000	.6899-04	.8335-04	.4982-01	.3845	521.5
629	.88000-01	135.00	438.00	.2938-02	.3548-02	.3548-02	.9000	.5052-04	.6102-04	.3652-01	.2681	520.9
629	.17500	00000	439.00	.2074-02	.2506-02	.2506-02	.9000	.3566-04	.4310-04	.2571-01	.1937	522.6
629	.17500	25.000	440.00	.2649-02	.3201-02	.3201-02	.9000	.4556-04	.5505-04	.3285-01	.2596	522.7
629	.17500	45.000	441.00	.5154-02	.6229-02	.6229-02	.9000	.8865-04	.1071-03	.6388-01	.4926	523.0
629	.17500	65.000	442.00	.6582-02	.7955-02	.7955-02	.9000	.1132-03	.1368-03	.8159-01	.6207	522.9
629	.17500	90.000	443.00	.3499-02	.4227-02	.4227-02	.9000	.6019-04	.7271-04	.4347-01	.3401	521.4
629	.27000	00000	444.00	.1883-02	.2275-02	.2275-02	.9000	.3238-04	.3913-04	.2335-01	.1919	522.6
629	.27000	25.000	445.00	.2895-02	.3499-02	.3499-02	.9000	.4980-04	.6018-04	.3591-01	.2789	522.6
629	.27000	45.000	446.00	.5002-02	.6046-02	.6046-02	.9000	.8603-04	.1040-03	.6200-01	.4986	523.0
629	.27000	65.000	447.00	.5098-02	.6160-02	.6160-02	.9000	.8768-04	.1059-03	.6323-01	.5123	522.5
629	.27000	90.000	448.00	.3196-02	.3861-02	.3861-02	.9000	.5497-04	.6641-04	.3971-01	.3174	521.3
629	.43800	00000	449.00	.1850-02	.2235-02	.2235-02	.9000	.3182-04	.3845-04	.2294-01	.1794	522.5
629	.43800	25.000	450.00	.2135-02	.2579-02	.2579-02	.9000	.3671-04	.4436-04	.2649-01	.2050	522.2
629	.43800	45.000	451.00	.3756-02	.4538-02	.4538-02	.9000	.6459-04	.7805-04	.4658-01	.3669	522.5
629	.43800	65.000	452.00	.3758-02	.4541-02	.4541-02	.9000	.6463-04	.7810-04	.4660-01	.3558	522.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3009

OH84B 60-0 SSME NOZZLE

(R4UY44)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TJ	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
629	43800	90 000	453 00	.3712-02	.4485-02	.4485-02	.9000	.6385-04	.7713-04	.4609-01	.3569	521.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3010

OH84B 60-0 SSME NOZZLE

(R4UY44)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 21.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
607	9872	7.940	39.96	1383-01	205.3	1276	93.74	.2208-01	.9744	3769.	.6358-03	.7543-07

RUN NUMBER	HREF BTU/ R FT <sup>2</sup> SEC	STN NO REF (R) = 0175
607	2426-01	4078-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
607	88000-01	315.00	432.00	.2641-02	.3177-02	.3177-02	9000	6407-04	7708-04	4843-01	.3780	519.8
607	88000-01	00000	433.00	.2882-02	.3466-02	.3466-02	9000	6991-04	.8410-04	5287-01	.4003	519.4
607	89000-01	25.000	434.00	.8552-02	.1030-01	.1030-01	.9000	.2075-03	.2498-03	1563	1.235	522.4
607	88000-01	45.000	435.00	.1716-01	.2067-01	.2067-01	.9000	.4164-03	.5015-03	3131	2.373	523.7
607	88000-01	65.000	436.00	.1849-01	.2225-01	.2225-01	.9000	.4486-03	.5399-03	3384	2.559	521.3
607	98000-01	90.000	437.00	.7425-02	.8932-02	.8932-02	9000	.1801-03	.2167-03	.1362	1.052	519.6
607	88000-01	135.00	438.00	.1996-02	.2400-02	.2400-02	9000	.4843-04	.5823-04	3670-01	2699	517.9
607	17500	00000	439.00	.2522-02	.3034-02	.3034-02	.9000	.6118-04	.7360-04	4624-01	3488	519.8
607	17500	25.000	440.00	.5288-02	.6363-02	.6363-02	.9000	.1283-03	.1544-03	9681-01	7657	521.0
607	17500	45.000	441.00	.1233-01	.1484-01	.1484-01	9000	.2991-03	.3601-03	2250	1.735	523.2
607	17500	65.000	442.00	.1436-01	.1728-01	.1728-01	9000	.3484-03	.4193-03	2628	2.001	521.2
607	17500	90.000	443.00	.7038-02	.8467-02	.8467-02	9000	.1707-03	.2054-03	.1291	1.011	519.6
607	27000	00000	444.00	.2089-02	.2513-02	.2513-02	9000	.5068-04	.6096-04	3831-01	3154	519.7
607	27000	25.000	445.00	.5904-02	.7106-02	.7106-02	.9000	.1432-03	.1724-03	1081	.8399	521.2
607	27000	45.000	446.00	.1094-01	.1317-01	.1317-01	9000	.2655-03	.3196-03	.2000	1.609	522.3
607	27000	65.000	447.00	.1171-01	.1409-01	.1409-01	.9000	.2841-03	.3419-03	.2144	1.739	520.9
607	27000	90.000	448.00	.7199-02	.8660-02	.8660-02	.9000	.1747-03	.2101-03	.1321	1.057	519.5
607	43800	00000	449.00	.1783-02	.2145-02	.2145-02	.9000	.4327-04	.5205-04	.3272-01	2563	519.4
607	43800	25.000	450.00	.3879-02	.4667-02	.4667-02	.9000	.9411-04	.1132-03	.7111-01	.5511	520.1
607	43800	45.000	451.00	.9672-02	.1164-01	.1164-01	.9000	.2347-03	.2824-03	.1771	1.396	520.8
607	43800	65.000	452.00	.1492-01	.1796-01	.1796-01	.9000	.3621-03	.4357-03	.2733	2.088	521.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3011

OH84B 60-0 SSME NOZZLE

(R4UY44)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/ 'O	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG P /SEC	TW DEG R
607	43800	90 000	453 00	9580-02	.1153-01	1153-01	9000	.2324-03	2796-03	.1756	1 361	520.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERTONIC TUNNEL

PAGE 3012

OH84B 60-0 SSME NOZZLE

(R4UY44)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 23.50    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
601	1.999	7.980	39.99	1388-01	435.3	1304	94.91	.4531-01	2.020	3811	.1289-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
601	3506-01	2971-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
601	88000-01	315.00	432.00	2009-02	2412-02	2412-02	.9000	.7044-04	.8456-04	.5500-01	.4286	522.9
601	83000-01	00000	433.00	1177-01	1413-01	1413-01	.9000	.4125-03	.4954-03	3215	2.428	524.3
601	88000-01	25.000	434.00	.1059	1279	.1279	.9000	.3712-02	.4484-02	2.813	21.96	546.1
601	88000-01	45.000	435.00	.1040	.1256	.1256	.9000	.3648-02	.4402-02	2.777	20.84	542.6
601	88000-01	65.000	436.00	.6555-01	.7891-01	.7891-01	.9000	.2298-02	.2767-02	1.769	13.30	533.8
601	88000-01	90.000	437.00	.6975-02	.8371-02	.8371-02	.9000	.2445-03	.2935-03	.1911	1.474	522.3
601	88000-01	135.00	438.00	.2099-02	.2518-02	.2518-02	.9000	.7358-04	.8827-04	.5763-01	.4233	520.4
601	17500	.00000	439.00	.1184-01	.1422-01	.1422-01	.9000	.4151-03	.4986-03	.3232	2.431	525.2
601	17500	25.000	440.00	.4592-01	.5528-01	.5528-01	.9000	.1610-02	.1938-02	1.241	9.751	533.2
601	17500	45.000	441.00	.8442-01	.1018	.1018	.9000	.2960-02	.3569-02	2.262	17.29	539.6
601	17500	65.000	442.00	.5212-01	.6275-01	.6275-01	.9000	.1828-02	.2200-02	1.407	10.65	533.6
601	17500	90.000	443.00	.7361-02	.8835-02	.8835-02	.9000	.2581-03	.3098-03	.2016	1.577	522.3
601	27000	00000	444.00	.9163-02	.1100-01	.1100-01	.9000	.3213-03	.3858-03	.2503	2.055	524.5
601	27000	25.000	445.00	.5945-01	.7157-01	.7157-01	.9000	.2085-02	.2509-02	1.605	12.40	533.6
601	27000	45.000	446.00	.6858-01	.8262-01	.8262-01	.9000	.2405-02	.2897-02	1.845	14.74	536.3
601	27000	65.000	447.00	.3538-01	.4255-01	.4255-01	.9000	.1240-02	.1492-02	.9596	7.745	530.0
601	27000	90.000	448.00	.5925-02	.7110-02	.7110-02	.9000	.2077-03	.2493-03	.1624	1.297	521.9
601	43800	00000	449.00	.6936-02	.8328-02	.8328-02	.9000	.2432-03	.2920-03	.1897	1.483	523.7
601	43800	25.000	450.00	.2945-01	.3540-01	.3540-01	.9000	.1032-02	.1241-02	.8003	6.176	528.5
601	43800	45.000	451.00	.3020-01	.3631-01	.3631-01	.9000	.1059-02	.1273-02	.8214	6.450	528.1
601	43800	65.000	452.00	.2126-01	.2555-01	.2555-01	.9000	.1745-03	.1895-03	.5792	4.413	526.7



DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3013

OH84B 60-O SSME NOZZLE

(R4UY44)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/10	TAW/TO	H(TO) BTU/R FT2SEC	- H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
601	43800	90 000	453 00	5367-02	6443-02	6443-02	.9000	.1882-03	.2259-03	.1470	1.138	522 6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3014

OH84B 60-0 SSME NOZZLE

(R4UY44)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 23.50 SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
587	3.006	7.990	40.06	.1398-01	671.3	1323.	96.07	.6933-01	3.098	3839.	.1948-02	.7731-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
587	4353-01	2339-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/10	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
587	88000-01	315.00	432 00	2410-02	2888-02	.2888-02	.9000	1049-03	.1257-03	.8382-01	.6528	523 8
587	88000-01	00000	433 00	.1499-01	1797-01	.1797-01	.9000	6524-03	.7822-03	.5202	3.926	525.4
587	88000-01	25.000	434 00	.1189	1435	.1435	.9000	.5174-02	6247-02	3 985	31.02	552.4
587	.88000-01	45 000	435 00	1296	1565	.1565	.9000	5641-02	6812-02	4 342	32 42	553.0
587	.88000-01	65.000	436 00	6157-01	7402-01	.7402-01	.9000	2680-02	.3222-02	2 107	15.81	536.4
587	88000-01	90 000	437 00	6323-02	7577-02	.7577-02	.9000	2753-03	.3298-03	.2201	1.897	523.2
587	88000-01	135 00	438 00	2289-02	2741-02	.2741-02	.9000	9963-04	1193-03	.7987-01	5864	521 0
587	.17500	.00000	439 00	1458-01	1749-01	.1749-01	.9000	6348-03	.7614-03	5050	3 795	527.2
587	.17500	25 000	440 00	5304-01	.6379-01	.6379-01	.9000	2309-02	.2777-02	1 813	14 22	537 6
587	.17500	45 000	441 00	1035	1248	.1248	.9000	4505-02	5433-02	3.488	26 56	548 3
587	.17500	65 000	442 00	5063-01	.6087-01	.6087-01	.9000	2204-02	2650-02	1 732	13.09	536 6
587	.17500	90 000	443 00	6393-02	7661-02	.7661-02	.9000	2783-03	3335-03	.2225	1 739	523.3
587	.27000	00000	444 00	9703-02	1163-01	.1163-01	.9000	.4224-03	5064-03	.3368	2 765	525 2
587	.27000	25 000	445 00	5683-01	6831-01	.6831-01	.9000	2474-02	2974-02	1.948	15 03	535 4
587	.27000	45 000	446 00	7363-01	8859-01	.8859-01	.9000	.3205-02	3857-02	2 510	20 02	539 5
587	.27000	65 000	447 00	3188-01	3827-01	.3827-01	.9000	.1388-02	.1666-02	1 099	8.870	530 5
587	.27000	90 000	448 00	5750-02	6889-02	.6889-02	.9000	.2503-03	.2999-03	.2002	1 599	522.7
587	.43800	.00000	449 00	6819-02	8173-02	.8173-02	.9000	.2968-03	.3558-03	.2369	1 851	524.5
587	.43800	25.000	450 00	2350-01	.2820-01	.2820-01	.9000	.1023-02	1227-02	.8124	6.269	528 5
587	.43800	45.000	451 00	.2670-01	3204-01	.3204-01	.9000	.1162-02	.1395-02	9224	7 240	529 1
587	.43800	65 000	452 00	1865-01	2238-01	.2238-01	.9000	.8120-03	9741-03	6455	4 916	527.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3015

OH84B 60-0 SSME NOZZLE

(R4UY44)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
587	43800	90.000	453 00	.4927-02	.5904-02	5904-02	9000	.2145-03	.2570-03	.1714	1.326	523.4

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VLF HYPERSONIC TUNNEL

PAGE 3016

0484B 60-0 SSME NOZZLE

(R4UY45)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = -5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TC DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
681	5058	7 900	39 93	-.1034-01	101 2	1255	93.06	1125-01	.4913	3736.	.3262-03	7489-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
681	.1718-01	5684-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
681	.88000-01	315 00	432 00	.3631-02	.4383-02	.4383-02	.9000	.6237-04	.7528-04	.4564-01	.3556	522.9
681	.88000-01	00000	433 00	.2269-02	.2738-02	.2738-02	.9000	.3898-04	.4703-04	.2855-01	.2159	522.1
681	.88000-01	25 000	434 00	.1851-02	.2234-02	.2234-02	.9000	.3180-04	.3837-04	.2330-01	.1842	522.0
681	.88000-01	45 000	435 00	.3252-02	.3924-02	.3924-02	.9000	.5586-04	.6740-04	.4094-01	.3106	521.8
681	.88000-01	65 000	436 00	.5633-02	.7038-02	.7038-02	.9000	.1002-03	.1209-03	.7342-01	.5551	521.9
681	.88000-01	90 000	437 00	.7735-02	.9333-02	.9333-02	.9000	.1329-03	.1603-03	.9733-01	.7509	522.1
681	.88000-01	135.00	438.00	.3447-02	.4158-02	.4158-02	.9000	.5921-04	.7143-04	.4345-01	.3191	520.9
681	.17500	00000	439 00	.1776-02	.2144-02	.2144-02	.9000	.3051-04	.3682-04	.2235-01	.1684	522.3
681	.17500	25 000	440 00	.1782-02	.2150-02	.2150-02	.9000	.3061-04	.3694-04	.2242-01	.1777	522.1
681	.17500	45 000	441 00	.2682-02	.3236-02	.3236-02	.9000	.4607-04	.5559-04	.3376-01	.2605	521.9
681	.17500	65 000	442 00	.5367-02	.6476-02	.6476-02	.9000	.9219-04	.1112-03	.6752-01	.5138	522.3
681	.17500	90 000	443 00	.6974-02	.8415-02	.8415-02	.9000	.1198-03	.1445-03	.8776-01	.6865	522.1
681	.27000	00000	444 00	.1408-02	.1700-02	.1700-02	.9000	.2419-04	.2919-04	.1772-01	.1457	522.3
681	.27000	25 000	445 00	.1659-02	.2001-02	.2001-02	.9000	.2849-04	.3438-04	.2087-01	.1622	522.0
681	.27000	45 000	446 00	.2352-02	.2838-02	.2838-02	.9000	.4040-04	.4874-04	.2960-01	.2382	521.9
681	.27000	65 000	447 00	.4916-02	.5933-02	.5933-02	.9000	.8445-04	.1019-03	.6187-01	.5013	522.1
681	.27000	90 000	448 00	.6534-02	.7884-02	.7884-02	.9000	.1122-03	.1354-03	.8226-01	.6573	521.8
681	.43800	00000	449 00	.1279-02	.1544-02	.1544-02	.9000	.2197-04	.2652-04	.1610-01	.1259	522.1
681	.43800	25.000	450.00	.1366-02	.1649-02	.1649-02	.9000	.2347-04	.2832-04	.1720-01	.1332	521.7
681	.43800	45 000	451.00	.1850-02	.2233-02	.2233-02	.9000	.2817-04	.3835-04	.2330-01	.1835	521.7
681	.43800	65 000	452 00	.4209-02	.5079-02	.5079-02	.9000	.7230-04	.8725-04	.1294-01	.4042	522.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3017

OH84B 60-0 SSME NOZZLE

(R4UY45)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HFEF R= TAW, TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
681	43800	90 000	453 00	5385-02	6498-02	6498-02	.9000	9250-04	1116-03	.6777-01	.5247	522 0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3018

OH84B 60-0 SSME NOZZLE

(R4UY45)

SSME NOZZLE

PARAMETRIC DATA

MACH = 6.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = -1.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	T(1) DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
667	1.005	7.940	39.96	-6.922-02	205.3	1261	92.64	2208-01	.9744	3746	.6433-03	.7454-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
667	2421-01	4049-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.8 TAW TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
667	.88000-01	315.00	432.00	1916-02	2312-02	.2312-02	.9000	.4639-04	.5597-04	.3415-01	2658	524.6
667	.88000-01	00000	433.00	9722-03	.1173-02	.1173-02	.9000	.2354-04	.2840-04	.1735-01	.1310	523.8
667	.88000-01	25.000	434.00	1854-02	.2237-02	.2237-02	.9000	.4489-04	.5415-04	.3307-01	.2611	524.0
667	.88000-01	45.000	435.00	4697-02	.5668-02	.5668-02	.9000	.1137-03	.1372-03	.8374-01	.6344	524.4
667	.88000-01	65.000	436.00	1417-01	.1710-01	.1710-01	.9000	.3430-03	.4140-03	.2521	1.903	525.6
667	.88000-01	90.000	437.00	1162-01	.1402-01	.1402-01	.9000	.2812-03	.3393-03	.2070	1.595	524.6
667	.88000-01	135.00	438.00	2359-02	.2844-02	.2844-02	.9000	.5711-04	.6887-04	.4216-01	.3093	522.4
667	.17500	00000	439.00	8306-03	.1002-02	.1002-02	.9000	.2011-04	.2426-04	.1481-01	1.115	524.1
667	.17500	25.000	440.00	1199-02	.1447-02	.1447-02	.9000	.2904-04	.3503-04	.2139-01	1.689	524.0
667	.17500	45.000	441.00	4102-02	.4950-02	.4950-02	.9000	.9933-04	.1199-03	.7312-01	.5635	524.5
667	.17500	65.000	442.00	1247-01	.1508-01	.1508-01	.9000	.3020-03	.3646-03	.2218	1.685	526.2
667	.17500	90.000	443.00	.1025-01	.1237-01	.1237-01	.9000	.2482-03	.2995-03	.1827	1.427	524.7
667	.27000	00000	444.00	.7507-03	.9057-03	.9057-03	.9000	.1817-04	.2193-04	.1339-01	1.100	524.1
667	.27000	25.000	445.00	1402-02	.1691-02	.1691-02	.9000	.3394-04	.4094-04	.2500-01	1.940	524.0
667	.27000	45.000	446.00	4271-02	.5153-02	.5153-02	.9000	.1034-03	.1248-03	.7611-01	.6116	524.6
667	.27000	65.000	447.00	1374-01	.1659-01	.1659-01	.9000	.3327-03	.4017-03	.2443	1.975	526.4
667	.27000	90.000	448.00	.8582-02	.1035-01	.1035-01	.9000	.2078-03	.2507-03	.1531	1.222	524.0
667	.43800	00000	449.00	.7709-03	.9301-03	.9301-03	.9000	.1866-04	.2252-04	.1375-01	1.075	524.0
667	.43800	25.000	450.00	.1281-02	.1545-02	.1545-02	.9000	.3101-04	.3741-04	.2285-01	.1768	523.8
667	.43800	45.000	451.00	.5517-02	.6657-02	.6657-02	.9000	.1336-03	.1612-03	.9829-01	.7732	524.7
667	.43900	65.000	452.00	.1423-01	.1718-01	.1718-01	.9000	.3445-03	.4160-03	.2529	1.927	526.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3019

OH84B-60-0 SSME NOZZLE

(R4UY45)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW. TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
667	43800	90.000	453.00	8359-02	.1009-01	.10041-01	9000	.2024-03	.2442-03	.1489	1.151	525.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3020

OH84B 60-0 SSME NOZZLE

(R4UY45)

SSME NOZZLE

PARAMETRIC DATA

MACH = 11.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = -5.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
687	1.992	7 980	40 00	- 6947-02	434.9	1306	95 05	.4527-01	2.018	3814.	.1285-02	.7649-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175										
687	.3505-01	2875-01										

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
687	.88000-01	315 00	432.00	1325-02	.1591-02	.1591-02	.9000	4643-04	.5576-04	.3624-01	.2820	525 3
687	.88000-01	00000	433 00	2905-02	.3499-02	.3499-02	.9000	1018-03	.1223-03	.7347-01	.5998	525 3
687	.88000-01	25 000	434.00	4718-02	.5666-02	.5666-02	.9000	1654-03	.1986-03	.1290	1.018	525.6
687	.88000-01	45 000	435 00	1464-01	.1759-01	.1759-01	.9000	.5132-03	.6167-03	.3991	3.018	528.0
687	.88000-01	65 000	436 00	5653-01	.7048-01	.7043-01	.9000	.2052-02	.2471-02	1.580	11.88	535 6
687	.88000-01	90 000	437 00	9273-02	.1114-01	.1114-01	.9000	.3251-03	.3904-03	.2535	1.952	525 8
687	.88000-01	135 00	438 00	.2318-02	.2782-02	.2782-02	.9000	.8125-04	.9753-04	.6355-01	.4660	523 4
687	.17500	00000	439 00	.2286-02	.2746-02	.2746-02	.9000	.8014-04	.9625-04	.6253-01	.4704	525.4
687	.17500	25 000	440 00	3047-02	.3659-02	.3659-02	.9000	.1068-03	.1283-03	.8333-01	.6576	525 5
687	.17500	45.000	441 00	.1327-01	.1595-01	.1593-01	.9000	.4653-03	.5591-03	.3618	2.783	528 0
687	.17500	65 000	442 00	.4890-01	.5892-01	.5892-01	.9000	.1714-02	.2065-02	1.316	9.934	538.0
687	.17500	90 000	443 00	.9392-02	.1128-01	.1128-01	.9000	.3292-03	.3955-03	.2567	2.004	526 1
687	.27000	00000	444 00	.1928-02	.2315-02	.2315-02	.9000	.6758-04	.8116-04	.5275-01	.4330	525.2
687	.27000	25 000	445 00	.3716-02	.4463-02	.4463-02	.9000	.1303-03	.1554-03	.1016	.7880	525.5
687	.27000	45.000	446 00	.1502-01	.1805-01	.1805-01	.9000	.5265-03	.6328-03	.4093	3.283	528 3
687	.27000	65.000	447 00	.4303-01	.5180-01	.5180-01	.9000	.1509-02	.1816-02	1.164	9.378	533 9
687	.27000	90 000	448 00	.7254-02	.8711-02	.8711-02	.9000	.2543-03	.3054-03	.1985	1.583	525 0
687	.43800	00000	449 00	.1455-02	.1748-02	.1743-02	.9000	.5102-04	.6126-04	.3984-01	3.113	524 7
687	.43800	25.000	450 00	.3750-02	.4504-02	.4504-02	.9000	.1315-03	.1579-03	.1026	.793.	525 2
687	.43800	45.000	451 00	.1854-01	.2229-01	.2223-01	.9000	.6501-03	.7812-03	.5056	3.971	528 0
687	.43800	65.000	452.00	.3133-01	.3772-01	.3772-01	.9000	.1099-02	.1322-02	.8507	8.465	531 7



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3021

OH84B 60-0 SSME NOZZLE

(R4UY45)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
687	.43800	90.000	453 00	.6214-02	.7462-02	.7462-02	.9000	2178-03	.2616-03	.1700	1 314	525.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3022

OH84B 60-0 SSME NOZZLE

(R4UY45)

SSME NOZZLE

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = -3.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	T DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
701	2.998	7.990	40.05	-6.978-02	669.5	1323	96.07	.6914-01	3.090	3839.	.1942-02	.7731-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
701	.4347-01	2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
701	88000-01	315.00	432.00	.7852-03	9427-03	.9427-03	.9000	.3413-04	.4098-04	.2702-01	.2096	531.1
701	88000-01	00000	433.00	.3044-02	.3655-02	.3655-02	.9000	.1323-03	.1589-03	.1047	.7877	531.5
701	.88000-01	25.000	434.00	.6157-02	.7395-02	.7395-02	.9000	.2677-03	.3215-03	.2115	1.663	532.4
701	.88000-01	45.000	435.00	.1697-01	.2040-01	.2040-01	.9000	.7377-03	.8867-03	.5807	4.375	535.5
701	88000-01	65.000	436.00	.8022-01	.9675-01	.9675-01	.9000	.3487-02	.4206-02	2.699	20.13	548.6
701	88000-01	90.000	437.00	.1244-01	.1495-01	.1495-01	.9000	.5409-03	.6499-03	.4268	3.273	533.7
701	88000-01	135.00	438.00	.1979-02	.2375-02	.2375-02	.9000	.8601-04	.1033-03	.6808-01	.4973	531.2
701	17500	.00000	439.00	.2678-02	.3216-02	.3216-02	.9000	.1164-03	.1398-03	.9213-01	.6909	531.3
701	17500	25.000	440.00	.3969-02	.4766-02	.4766-02	.9000	.1726-03	.2072-03	.1365	1.074	531.4
701	17500	45.000	441.00	.1626-01	.1954-01	.1954-01	.9000	.7067-03	.8495-03	.5564	4.264	535.4
701	.17500	65.000	442.00	.6579-01	.7947-01	.7947-01	.9000	.2860-02	.3455-02	2.199	16.47	553.9
701	.17500	90.000	443.00	.1349-01	.1621-01	.1621-01	.9000	.5864-03	.7046-03	.4623	3.594	534.3
701	.27000	00000	444.00	.2115-02	.2540-02	.2540-02	.9000	.9195-04	.1104-03	.7280-01	.5959	531.0
701	27000	25.000	445.00	.5397-02	.6480-02	.6480-02	.9000	.2346-03	.2817-03	.1856	1.435	531.7
701	27000	45.000	446.00	.2254-01	.2710-01	.2710-01	.9000	.9799-03	.1178-02	.7700	6.149	536.9
701	27000	65.000	447.00	.5552-01	.6691-01	.6691-01	.9000	.2414-02	.2909-02	1.876	15.02	545.6
701	27000	90.000	448.00	.9091-02	.1092-01	.1092-01	.9000	.3952-03	.4747-03	.3123	2.482	532.5
701	43800	00000	449.00	.1701-02	.2041-02	.2041-02	.9000	.7393-04	.8874-04	.5857-01	.4562	530.4
701	.43800	25.000	450.00	.6648-02	.7983-02	.7983-02	.9000	.2890-03	.3470-03	.2287	1.762	531.5
701	43800	45.000	451.00	.3299-01	.3967-01	.3967-01	.9000	.1434-02	.1725-02	1.127	8.807	537.1
701	.43800	65.000	452.00	.3668-01	.4413-01	.4413-01	.9000	.1595-02	.1919-02	1.250	9.460	539.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3023

OH84B 60-0 SSME NOZZLE

(R40Y45)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
701	43800	90 000	453 00	7068-02	.8488-02	84811-02	9000	.3073-03	.3690-03	.2429	1.071	532.1

DATE 23 FEB 60

OH84B MODEL 60-0 IN THE AEDC KF HYPERSONIC TUNNEL

PAGE 3024

OH84B 60-0 SSME NOZZLE

(R4UY46)

SSME NOZZLE

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
679	5025	7.900	39 97	- 6923-02	100.5	1255.	93.06	.1117-01	.4881	3736.	.3241-03	.7489-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
679	1712-01	5703-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=0.5 TAK/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
679	.88000-01	315 00	432 00	.3899-02	4709-02	.4703-02	.9000	6676-04	8063-04	4869-01	.3789	525.4
679	.88000-01	00000	433 00	.2324-02	.2806-02	.2806-02	.9000	3979-04	4804-04	2905-01	.2193	524.5
679	.88000-01	25 000	434 00	.2056-02	.2482-02	.2482-02	.9000	3520-04	.4250-04	2570-01	.2029	524.5
679	.88000-01	45 000	435 00	.3749-02	.4527-02	.4527-02	.9000	.6419-04	.7751-04	.4688-01	.3552	524.4
679	.88000-01	65 000	436 00	.5929-02	.7159-02	.7159-02	.9000	1015-03	1226-03	.7412-01	.5596	524.5
679	.88000-01	90 000	437 00	.6484-02	.7830-02	.7830-02	.9000	.1110-03	1341-03	.8105-01	.6245	524.6
679	.88000-01	135 00	438 00	.3366-02	.4064-02	.4064-02	.9000	.5764-04	6958-04	4213-01	.3089	523.6
679	.17500	00000	439 00	.1865-02	.2252-02	.2252-02	.9000	.3194-04	.3856-04	2332-01	.1755	524.6
679	.17500	25 000	440 00	.1708-02	.2063-02	.2063-02	.9000	2925-04	.3532-04	2136-01	.1686	524.5
679	.17500	45 000	441 00	.3019-02	.3646-02	.3646-02	.9000	5169-04	6242-04	.3775-01	.2909	524.3
679	.17500	65 000	442 00	.5317-02	.6421-02	.6421-02	.9000	.9104-04	1099-03	.6645-01	.5050	524.8
679	.17500	90 000	443 00	.5900-02	.7124-02	.7124-02	.9000	.1010-03	.1220-03	.7376-01	.5763	524.5
679	.27000	00000	444 00	.1383-02	.1670-02	.1670-02	.9000	2368-04	2859-04	.1729-01	.1420	524.5
679	.27000	25 000	445 00	.1600-02	.1931-02	.1931-02	.9000	.2739-04	.3307-04	.2000-01	.1552	524.3
679	.27000	45 000	446 00	.2487-02	.3003-02	.3003-02	.9000	4258-04	.5142-04	.3110-01	.2499	524.3
679	.27000	65 000	447 00	.4491-02	.5423-02	.5423-02	.9000	7690-04	9285-04	.5614-01	.4544	524.6
679	.27000	90 000	448 00	.5401-02	.6521-02	.6521-02	.9000	9247-04	.1116-03	.6755-01	.5391	524.2
679	.43800	00000	449 00	.1224-02	.1478-02	.1478-02	.9000	.2096-04	.2531-04	.1531-01	.1196	524.3
679	.43800	25 000	450 00	.1526-02	.1842-02	.1842-02	.9000	2613-04	.3154-04	.1909-01	.1477	524.0
679	.43800	45 000	451 00	.2013-02	.2430-02	.2430-02	.9000	.3446-04	.4160-04	.2518-01	.1981	524.0
679	.43800	65 000	452 00	.3480-02	.4202-02	.4202-02	.9000	5958-04	.7195-04	.4349-01	.3316	524.8

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3025

OH84B 60-O SSME NOZZLE

(R4UY46)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
679	43800	90 000	453.00	.4107-02	.4959-02	.4953-02	.9000	.7032-04	.8490-04	.5136-01	.3972	524.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC /KF HYPERSONIC TUNNEL

PAGE 3026

OH84B 60-0 SSME NOZZLE

(R4UY46)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5 000  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
665	1 003	7.940	39 97	- 1732-01	205.8	126E	92 93	2213-01	.9768	3752.	.6429-03	.7478-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
665	2425-01	.4052-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	GTWDT DEG R /SEC	TW DEG R
665	.88000-01	315 00	432 00	1773-02	2142-02	.2142-02	9000	4301-04	.5196-04	3156-01	.2450	530.8
665	.88000-01	00000	433 00	1164-02	.1406-02	.1406-02	.9000	2822-04	3409-04	2073-01	.1561	530.1
665	.88000-01	25 000	434 00	.2063-02	2492-02	.2492-02	9000	.5004-04	.6045-04	3674-01	.2892	530.5
665	.88000-01	45 000	435 00	.4466-02	5396-02	.5396-02	.9000	.1083-03	.1309-03	.7946-01	.5999	531.1
665	.88000-01	65 000	436 00	1091-01	.1319-01	.1319-01	.9000	.2647-03	3199-03	.1939	1.458	532.1
665	.98000-01	90 000	437 00	8467-02	1023-01	.1023-01	.9000	.2054-03	2482-03	.1506	1.156	531.5
665	.88000-01	135 00	438 00	.2003-02	2419-02	.2419-02	9000	4857-04	5868-04	.3566-01	.2606	530.4
665	.17500	00000	439 00	9360-03	1131-02	.1131-02	.9000	2270-04	.2742-04	1667-01	1.251	530.1
665	.17500	25 000	440 00	1309-02	.1581-02	.1581-02	.9000	.3174-04	3835-04	.2331-01	1.835	530.2
665	.17500	45 000	441 00	.3592-02	4340-02	.4340-02	.9000	8713-04	1053-03	6392-01	.4910	531.0
665	.17500	65 000	442 00	9164-02	1108-01	.1108-01	9000	.2223-03	2687-03	.1628	1.232	532.4
665	.17500	90 000	443 00	.8092-02	.9781-02	.9781-02	.9000	.1963-03	2372-03	1438	1.119	532.1
665	.27000	00000	444 00	8940-03	1080-02	.1080-02	9000	.2168-04	2619-04	1593-01	.1304	530.1
665	.27000	25 000	445 00	1363-02	1647-02	.1647-02	9000	3306-04	.3994-04	.2428-01	.1879	530.2
665	.27000	45 000	446 00	3325-02	4018-02	.4018-02	.9000	.8065-04	9745-04	.5918-01	.4740	530.9
665	.27000	65 000	447 00	8609-02	.1041-01	.1041-01	9000	.2088-03	2524-03	.1529	1.233	532.2
665	.27000	90 000	448 00	7033-02	.8500-02	.8500-02	9000	.1706-03	2062-03	.1250	.9941	531.6
665	.43800	00000	449 00	8017-03	.9684-03	.9684-03	.9000	.1945-04	2349-04	.1429-01	.1113	529.9
665	.43800	25 000	450 00	1035-02	.1250-02	.1250-02	.9000	.2510-04	.3032-04	.1844-01	1.422	529.8
665	.43800	45 000	451 00	.2944-02	.3556-02	.3556-02	.9000	.7139-04	.8625-04	.5242-01	.4111	530.5
665	.43800	65 000	452 00	.7973-02	.9636-02	.9636-02	.9000	.1934-03	.2337-03	.1417	1.077	532.0

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O SSME NOZZLE

(R4UY46)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
665	43800	90.000	453.00	6819-02	.8241-02	.8241-02	9000	.1654-03	1999-03	.1212	.9337	531.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3028

OH84B 60-0 SSME NOZZLE

(R4UY46)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = .0000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
689	1 996	7.980	39.99	-1.141-01	434.3	130.1	94.84	.4521-01	2.015	3810	.1297-02	.7631-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
689	.3502-01	2873-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
689	.88000-01	315 00	432 00	.1589-02	.1910-02	.19 0-02	.9000	.5565-04	.6690-04	.4311-01	.3350	528.0
689	.88000-01	.00000	433 00	.2569-02	.3088-02	.3088-02	.9000	.8996-04	.1081-03	.6972-01	.5256	527.6
689	.88000-01	25 000	434 00	.4731-02	.5689-02	.5689-02	.9000	.1657-03	.1992-03	.1282	1.010	528.7
689	.88000-01	45 000	435 00	.1505-01	.1811-01	.18 1-01	.9000	.5271-03	.6342-03	.4068	3.072	530.9
689	.88000-01	65.000	436 00	.5555-01	.6695-01	.6695-01	.9000	.1945-02	.2344-02	1.487	11 15	538 0
689	.88000-01	90 000	437 00	.8250-02	.9920-02	.9920-02	.9000	.2889-03	.3474-03	.2235	1 718	529 0
689	.88000-01	135.00	438 00	.2017-02	.2425-02	.2425-02	.9000	.7065-04	.8492-04	.5476-01	.4007	527 5
689	.17500	.00000	439.00	.2161-02	.2597-02	.2597-02	.9000	.7567-04	.9095-04	.5866-01	.4407	527.5
689	.17500	25.000	440 00	.2606-02	.3133-02	.31 13-02	.9000	.9126-04	.1097-03	.7073-01	.5575	527 7
689	.17500	45 000	441 00	.1349-01	.1623-01	.1623-01	.9000	.4725-03	.5684-03	.3647	2 802	530 7
689	.17500	65 000	442.00	.4608-01	.5558-01	.5558-01	.9000	.1614-02	.1946-02	1 230	9 277	540 3
689	.17500	90 000	443 00	.8520-02	.1025-01	.1025-01	.9000	.2983-03	.3588-03	.2307	1 798	529.2
689	.27000	.00000	444 00	.1657-02	.1992-02	.1992-02	.9000	.5804-04	.6976-04	.4500-01	.3690	527.3
689	.27000	25 000	445 00	.3822-02	.4595-02	.4595-02	.9000	.1338-03	.1609-03	.1037	.8031	527.9
689	.27000	45.000	446.00	.1540-01	.1853-01	.1853-01	.9000	.5394-03	.6489-03	.4162	3 334	531 0
689	.27000	65.000	447 00	.3760-01	.4531-01	.4531-01	.9000	.1317-02	.1586-02	1 008	8.108	536 9
689	.27000	90.000	448 00	.6605-02	.7941-02	.79 1-02	.9000	.2313-03	.2781-03	.1791	1 426	528.3
689	.43800	.00000	449 00	.1424-02	.1711-02	.17 1-02	.9000	.4985-04	.5991-04	.3868-01	.3019	526 7
689	.43800	25.000	450.00	.4244-02	.5101-02	.51 11-02	.9000	.1486-03	.1786-03	.1152	.8895	527 4
689	.43800	45.000	451.00	.1864-01	.2363-01	.2363-01	.9000	.6877-03	.8273-03	.5310	4 165	530 5
689	.43800	65.000	452.00	.2014-01	.3508-01	.35 19-01	.9000	.1020-02	.1228-02	.7846	5 956	533 7



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY46)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAI / TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
689	43800	90 000	453.00	.5785-02	.6955-02	.6955-02	.9000	.2026-03	.2435-03	.1569	1.211	528.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3030

OH84B 60-0 SSME NOZZLE

(R4U46)

SSME NOZZLE

PARAMETRIC DATA:

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5 000  
 BDFLAP = .0000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEC. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
699	2 999	7 990	40 05	-.6984-02	670 4	1324	96.14	.6923-01	3.094	3841.	.1944-02	.7736-07

RUN NUMBER	HREF BTU/ R F12SEC	STN NO REF(R) =.0175
699	.4351-01	2341-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG } R /SEC	TW DEG R
699	.88000-01	315 00	432 00	.7216-03	.8663-03	.8663-03	.9000	.3139-04	.3769-04	.2487-01	.1930	531.3
699	.88000-01	.00000	432 00	.3520-02	.4226-02	.4226-02	.9000	.1531-03	.1839-03	.1213	.9122	531.8
699	.88000-01	25 000	434 00	.5862-02	.7040-02	.7040-02	.9000	.2550-03	.3063-03	.2017	1.586	532.7
699	.88000-01	45 000	435 00	.1996-01	.2400-01	.2400-01	.9000	.8686-03	.1044-02	.6834	5.145	536.8
699	.88000-01	65 000	436 00	.8319-01	.1003	.1003	.9000	.3620-02	.4366-02	2.803	20.90	549.2
699	.88000-01	90 000	437 00	.9894-02	.1188-01	.1188-01	.9000	.4305-03	.5171-03	.3403	2.610	533.2
699	.88000-01	135 00	438 00	.2060-02	.2473-02	.2473-02	.9000	.3961-04	.1076-03	.7099-01	.5184	531.5
699	.17500	.00000	439 00	.3001-02	.3603-02	.3603-02	.9000	.1306-03	.1568-03	.1034	.7754	531.6
699	.17500	25 000	440 00	.4172-02	.5009-02	.5009-02	.9000	.1815-03	.2179-03	.1437	1.130	532.1
699	.17500	45 000	441 00	.1918-01	.2306-01	.2306-01	.9000	.8344-03	.1003-02	.6568	5.031	536.5
699	.17500	65 000	442 00	.6734-01	.8132-01	.8132-01	.9000	.2930-02	.3538-02	2.255	16.89	553.9
699	.17500	90 000	443 00	.1062-01	.1275-01	.1275-01	.9000	.4619-03	.5548-03	.3648	2.837	533.7
699	.27000	.00000	444 00	.2378-02	.2855-02	.2855-02	.9000	.1035-03	.1242-03	.8199-01	.6710	531.2
699	.27000	25 000	445 00	.5663-02	.6800-02	.6800-02	.9000	.2464-03	.2959-03	.1951	1.508	532.0
699	.27000	45 000	446 00	.2547-01	.3063-01	.3063-01	.9000	.1108-02	.1333-02	.8703	6.944	538.3
699	.27000	65 000	447 00	.5260-01	.6337-01	.6337-01	.9000	.2288-02	.2757-02	1.782	14.28	544.9
699	.27000	90 000	448 00	.7452-02	.8949-02	.8949-02	.9000	.3242-03	.3893-03	.2566	2.039	532.2
699	.43800	.00000	449 00	.1845-02	.2215-02	.2215-02	.9000	.8027-04	.9635-04	.6367-01	.4959	530.5
699	.43800	25 000	450 00	.7636-02	.9169-02	.9169-02	.9000	.3322-03	.3989-03	.2630	2.026	532.0
699	.43800	45 000	451 00	.4762-01	.4887-01	.4887-01	.9000	.1767-02	.2126-02	1.386	10.82	539.4
699	.43800	65 000	452 00	.3782-01	.4551-01	.4551-01	.9000	.1646-02	.1980-02	1.290	9.765	539.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3031

OH84B 60-0 SSME NOZZLE

(R4UY46)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/ IREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
699	.43800	90 000	453 00	.5792-02	.6955-02	.6935-02	.9000	.2520-03	.3026-03	.1995	1 536	532.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3032

OH84B 60-0 SSME NOZZLE

(R4UY47)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 PETA = .0000 ELEVON = 5.000  
 BDFLAP = 8.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
683	5030	7.900	39.93	-6896-02	100.5	125+	92.99	1117-01	.4880	3735.	.3242-03	.7483-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
683	.1712-01	5700-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
683	88000-01	315.00	432.00	.3322-02	.4012-02	.4012-02	.9000	.5687-04	.6868-04	.4146-01	.3228	524.6
683	88000-01	.00000	433.00	.2664-02	.3216-02	.3216-02	.9000	.4560-04	.5506-04	.3328-01	.2514	523.9
683	88000-01	25.000	434.00	.2695-02	.3254-02	.3254-02	.9000	.4613-04	.5570-04	.3367-01	.2659	523.8
683	88000-01	45.000	435.00	.3622-02	.4373-02	.4373-02	.9000	.6201-04	.7486-04	.4527-01	.3431	523.6
683	88000-01	65.000	436.00	.4635-02	.5597-02	.5597-02	.9000	.7935-04	.9580-04	.5793-01	.4376	523.6
683	88000-01	90.000	437.00	.4018-02	.4850-02	.4850-02	.9000	.6877-04	.8303-04	.5021-01	.3871	523.5
683	88000-01	135.00	438.00	.3812-02	.4601-02	.4601-02	.9000	.6525-04	.7876-04	.4767-01	.3497	523.0
683	17500	.00000	439.00	.1979-02	.2389-02	.2389-02	.9000	.3387-04	.4090-04	.2472-01	.1851	523.9
683	17500	25.000	440.00	.2106-02	.2543-02	.2543-02	.9000	.3605-04	.4353-04	.2632-01	.2078	523.8
683	17500	45.000	441.00	.2782-02	.3359-02	.3359-02	.9000	.4763-04	.5750-04	.3477-01	.2681	523.6
683	17500	65.000	442.00	.4098-02	.4948-02	.4948-02	.9000	.7015-04	.8470-04	.5120-01	.3893	523.8
683	17500	90.000	443.00	.3565-02	.4304-02	.4304-02	.9000	.6103-04	.7367-04	.4457-01	.3484	523.4
683	27000	.00000	444.00	.1752-02	.2115-02	.2115-02	.9000	.2998-04	.3620-04	.2188-01	.1798	523.8
683	27000	25.000	445.00	.1871-02	.2259-02	.2259-02	.9000	.3203-04	.3867-04	.2339-01	.1815	523.6
683	27000	45.000	446.00	.2249-02	.2716-02	.2716-02	.9000	.3850-04	.4648-04	.2811-01	.2260	523.6
683	27000	65.000	447.00	.3341-02	.4034-02	.4034-02	.9000	.5719-04	.6904-04	.4175-01	.3381	523.6
683	27000	90.000	448.00	.3358-02	.4054-02	.4054-02	.9000	.5749-04	.6940-04	.4199-01	.3353	523.2
683	43800	.00000	449.00	.1277-02	.1541-02	.1541-02	.9000	.2185-04	.2638-04	.1595-01	.1247	523.5
683	43800	25.000	450.00	.1376-02	.1661-02	.1661-02	.9000	.2355-04	.2843-04	.1720-01	.1331	523.2
683	43800	45.000	451.00	.1907-02	.2303-02	.2303-02	.9000	.3265-04	.3941-04	.2385-01	.1877	523.2
683	43800	65.000	452.00	.2686-02	.3243-02	.3243-02	.9000	.4598-04	.5552-04	.3356-01	.2561	523.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3038

OH84B 60-0 SSME NOZZLE

(R40Y47)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAI/IO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
683	.43800	90 000	453 00	2488-02	3003-02	3013-02	9000	.4258-04	.5140-04	.3110-01	.2488	523.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3034

OH84B 60-0 SSME NOZZLE

(R4UY47)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 8.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEC R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
669	1.010	7.940	39.95	-1.1037-01	205.9	1259	92.49	2215-01	.9773	3743.	.6462-03	.7443-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (P) =.0175
669	2424-01	.4040-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG
669	.88000-01	315.00	432.00	.1923-02	.2319-02	.2319-02	9000	.4660-04	.5622-04	.3429-01	.2672	522.8
669	.88000-01	.00000	433.00	.1528-02	.1843-02	.1843-02	9000	.3704-04	.4467-04	.2726-01	.2062	522.2
669	.88000-01	25.000	434.00	.2599-02	.3135-02	.3135-02	9000	.6301-04	.7600-04	.4639-01	.3666	522.4
669	.88000-01	45.000	435.00	.3744-02	.4516-02	.4516-02	9000	.9075-04	.1095-03	.6683-01	.5068	522.3
669	.88000-01	65.000	436.00	.6500-02	.7841-02	.7841-02	9000	.1575-03	.1901-03	.1159	.8762	522.8
669	.88000-01	90.000	437.00	.6401-02	.7720-02	.7720-02	9000	.1551-03	.1871-03	.1143	.8815	522.2
669	.88000-01	135.00	438.00	.2715-02	.3273-02	.3273-02	9000	.6582-04	.7935-04	.4858-01	.3568	520.6
669	.17500	.00000	439.00	.1315-02	.1586-02	.1586-02	9000	.3187-04	.3845-04	.2346-01	.1767	522.6
669	.17500	25.000	440.00	.1748-02	.2109-02	.2109-02	9000	.4238-04	.5112-04	.3120-01	.2466	522.5
669	.17500	45.000	441.00	.2934-02	.3539-02	.3539-02	9000	.7113-04	.8579-04	.5237-01	.4040	522.4
669	.17500	65.000	442.00	.5455-02	.6581-02	.6581-02	9000	.1322-03	.1595-03	.9728-01	.7401	523.0
669	.17500	90.000	443.00	.5501-02	.6635-02	.6635-02	9000	.1334-03	.1608-03	.9822-01	.7683	522.2
669	.27000	.00000	444.00	.1167-02	.1407-02	.1407-02	9000	.2828-04	.3411-04	.2082-01	.1711	522.6
669	.27000	25.000	445.00	.1562-02	.1884-02	.1884-02	9000	.3787-04	.4568-04	.2788-01	.2166	522.4
669	.27000	45.000	446.00	.2399-02	.2894-02	.2894-02	9000	.5816-04	.7015-04	.4282-01	.3445	522.4
669	.27000	65.000	447.00	.4231-02	.5104-02	.5104-02	9000	.1026-03	.1237-03	.7548-01	.6115	522.7
669	.27000	90.000	448.00	.5097-02	.6147-02	.6147-02	9000	.1236-03	.1490-03	.9103-01	.7273	521.9
669	.43800	.00000	449.00	.8624-03	.1040-02	.1040-02	9000	.2090-04	.2522-04	.1539-01	.1204	522.5
669	.43800	25.000	450.00	.1078-02	.1300-02	.1300-02	9000	.2613-04	.3151-04	.1924-01	.1480	522.2
669	.43800	45.000	451.00	.1715-02	.2069-02	.2069-02	9000	.4157-04	.5014-04	.3062-01	.2412	522.1
669	.43800	65.000	452.00	.3241-02	.3910-02	.3910-02	9000	.7857-04	.9478-04	.5781-01	.4413	522.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3035

OH84B 60-0 SSME NOZZLE

(RUY47)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DIWDT DEG. R /SEC	TW DEG. R
669	43800	90.000	453 00	5643-02	6807-02	.6807-02	.9000	1368-03	.1650-03	.1007	.7795	522.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3038

OH84B 60-0-SSME NOZZLE

(R4U47)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 8.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
685	2.023	7.980	39.98	-6930-02	434.5	1292.	94.03	.4523-01	2.016	3794.	.1298-02	.7567-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
685	3497-01	2858-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
685	88000-01	315.00	432.00	.1539-02	.1852-02	.1852-02	.9000	5382-04	6477-04	.4114-01	.3198	527.4
685	88000-01	00000	433.00	.1631-02	.1962-02	.1962-02	.9000	5703-04	6862-04	.4359-01	.3287	527.2
685	88000-01	25.000	434.00	.2848-02	.3428-02	.3428-02	.9000	.9961-04	1199-03	.7605-01	.5993	528.2
685	88000-01	45.000	435.00	.7972-02	.9599-02	.9599-02	.9000	.2788-03	.3357-03	.2125	1.606	529.5
685	88000-01	65.000	436.00	.2544-01	.3065-01	.3065-01	.9000	.8896-03	.1072-02	.6752	5.077	532.7
685	88000-01	90.000	437.00	.1004-01	.1208-01	.1208-01	.9000	.3510-03	.4226-03	.2676	2.057	529.3
685	88000-01	135.00	438.00	.1933-02	.2326-02	.2326-02	.9000	.6760-04	.8135-04	.5165-01	.3780	527.5
685	17500	.00000	439.00	.1176-02	.1415-02	.1415-02	.9000	.4113-04	.4949-04	.3144-01	.2363	527.2
685	17500	25.000	440.00	.1592-02	.1916-02	.1916-02	.9000	.5569-04	.6701-04	.4255-01	.3354	527.5
685	17500	45.000	441.00	.6493-02	.7817-02	.7817-02	.9000	.2271-03	.2734-03	.1731	1.331	529.3
685	17500	65.000	442.00	.2085-01	.2514-01	.2514-01	.9000	.7293-03	.8792-03	.5528	4.182	533.7
685	17500	90.000	443.00	.9631-02	.1160-01	.1160-01	.9000	.3368-03	.4056-03	.2568	2.001	529.4
685	27000	00000	444.00	.8915-03	.1073-02	.1073-02	.9000	.3118-04	.3751-04	.2384-01	.1955	527.0
685	27000	25.000	445.00	.2039-02	.2454-02	.2454-02	.9000	.7132-04	.8582-04	.5450-01	.4222	527.5
685	27000	45.000	446.00	.6579-02	.7921-02	.7921-02	.9000	.2301-03	.2770-03	.1754	1.407	529.2
685	27000	65.000	447.00	.2192-01	.2642-01	.2642-01	.9000	.7665-03	.9238-03	.5815	4.686	533.0
685	27000	90.000	448.00	.8573-02	.1032-01	.1032-01	.9000	.2998-03	.3610-03	.2287	1.821	528.9
685	43800	00000	449.00	.7522-03	.9049-03	.9049-03	.9000	.2631-04	.3165-04	.2014-01	.1572	526.0
685	43800	25.000	450.00	.1670-02	.2009-02	.2009-02	.9000	.5840-04	.7026-04	.4469-01	.3452	526.4
685	43800	45.000	451.00	.6688-02	.8047-02	.8047-02	.9000	.2338-03	.2814-03	.1786	1.403	527.9
685	43800	65.000	452.00	.1861-01	.2242-01	.2242-01	.9000	.8507-03	.7840-03	.4844	3.757	531.9



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3037

OH84B 60-0 SSME NOZZLE

(R4UY47)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
685	43800	90.000	453.00	8252-02	9935-02	.9935-02	.9000	.2885-03	.3475-03	.2201	1.698	529.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3038

OH84B 60-0 SSME NOZZLE

(R4UY47)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 8.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TC DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
703	2.990	7.990	40.01	-6955-02	668.4	1324	90.14	.6903-01	3.085	3841.	.1938-02	.7736-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) =.0175
703	4344-01	2345-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	AW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
703	.88000-01	315.00	432.00	1031-02	1236-02	1236-02	.9000	.4478-04	.5371-04	.3567-01	.2774	527.1
703	.88000-01	00000	433.00	1921-02	2304-02	.2304-02	.9000	.8345-04	.1001-03	.6647-01	.5012	527.1
703	.89000-01	25.000	434.00	.5023-02	6026-02	.6026-02	.9000	.2182-03	.2618-03	.1736	1.367	528.4
703	.88000-01	45.000	435.00	.1492-01	1791-01	1791-01	.9000	.6480-03	.7779-03	.5134	3.876	531.4
703	.88000-01	65.000	436.00	.6008-01	.7231-01	7231-01	.9000	.2610-02	.3141-02	2.042	15.29	541.2
703	.88000-01	90.000	437.00	.1429-01	.1715-01	1715-01	.9000	.6209-03	.7450-03	.4932	3.792	529.3
703	.88000-01	135.00	438.00	.2289-02	2744-02	2744-02	.9000	.9945-04	.1192-03	.7936-01	.5813	525.7
703	17500	00000	439.00	.1659-02	1989-02	1989-02	.9000	.7206-04	.8542-04	.5740-01	.4314	527.1
703	17500	25.000	440.00	.3059-02	3669-02	3669-02	.9000	.1329-03	.1594-03	.1058	.8335	527.8
703	17500	45.000	441.00	.1314-01	.1577-01	1577-01	.9000	.5709-03	.6053-03	.4525	3.475	531.1
703	17500	65.000	442.00	.5173-01	.6231-01	6231-01	.9000	.2247-02	.2707-02	1.752	13.18	544.2
703	17500	90.000	443.00	.1411-01	.1694-01	1694-01	.9000	.6132-03	.7357-03	.4871	3.796	529.3
703	27000	.00000	444.00	.1177-02	.1652-02	1652-02	.9000	.5983-04	.7175-04	.4766-01	.3909	527.0
703	27000	25.000	445.00	.4253-02	.5101-02	5101-02	.9000	.1847-03	.2216-03	.1470	1.138	528.2
703	27000	45.000	446.00	.1460-01	.1752-01	1752-01	.9000	.6341-03	.7612-03	.5027	4.026	530.9
703	27000	65.000	447.00	.5332-01	.6491-01	6491-01	.9000	.2343-02	.2820-02	1.832	14.70	541.6
703	27000	90.000	448.00	.8978-02	.1185-01	1185-01	.9000	.4291-03	.5147-03	.3415	2.720	527.9
703	43800	.00000	449.00	.1277-02	.1531-02	1531-02	.9000	.5548-04	.6652-04	.4422-01	.3451	526.6
703	43800	25.000	450.00	.3914-02	.4694-02	4694-02	.9000	.1700-03	.2039-03	.1354	1.046	527.1
703	43800	45.000	451.00	.2208-01	.2651-01	2651-01	.9000	.9593-03	.1152-02	.7599	5.956	531.6
703	43800	65.000	452.00	.4527-01	.5444-01	5444-01	.9000	.1967-02	.2365-02	1.546	11.71	537.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3039

OH84B 60-0 SSME NOZZLE

(R4UY47)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	AW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
703	43800	90 000	453.00	7125-02	8546-02	.8546-02	.4000	3095-03	.3713-03	.2463	1.902	527.8

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3040

0484B 60-0 SSME NOZZLE

(R4UY48)

SSME NOZZLE

PARAMETRIC DATA

MACH = 6.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
 BOFLAP = 15.00    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
675	5021	7.900	39.94	-6.904-02	100.2	1253	92.91	.1114-01	4866	3733.	.3235-03	.7477-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) =.0175
675	1709-01	5706-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
675	88000-01	315.00	432.00	2616-02	3163-02	.3163-02	.3000	.4471-04	.5405-04	.3242-01	.2520	527.7
675	88000-01	.00000	433.00	2322-02	.2807-02	2807-02	.3000	.3969-04	4797-04	2878-01	2170	527.4
675	88000-01	25.000	434.00	.1923-02	.2324-02	.2324-02	.3000	.3286-04	3972-04	.2383-01	.1878	527.6
675	89000-01	45.000	435.00	.2560-02	.3095-02	.3095-02	.3000	.4375-04	5289-04	.3172-01	.2399	527.6
675	88000-01	65.000	436.00	3040-02	.3675-02	3675-02	.3000	.5195-04	6280-04	.3766-01	.2839	527.7
675	88000-01	90.000	437.00	3082-02	.3726-02	3726-02	.3000	.5268-04	6368-04	.3818-01	.2937	527.9
675	88000-01	135.00	438.00	3210-02	.3881-02	3881-02	.3000	.5486-04	6632-04	.3978-01	.2911	527.6
675	17500	.00000	439.00	1743-02	2107-02	2107-02	.9000	.2978-04	3600-04	.2160-01	1623	527.4
675	17500	25.000	440.00	1534-02	1854-02	1854-02	.3000	.2621-04	3168-04	.1901-01	1498	527.5
675	17500	45.000	441.00	2047-02	2475-02	.2475-02	.3000	.3499-04	4230-04	.2537-01	.1952	527.6
675	17500	65.000	442.00	.2657-02	3212-02	.3212-02	.3000	.4540-04	5489-04	.3291-01	2497	528.0
675	17500	90.000	443.00	.2575-02	3113-02	.3113-02	.3000	.4400-04	5319-04	.3190-01	.2488	527.7
675	27000	.00000	444.00	.1479-02	1788-02	.1788-02	.3000	.2527-04	3055-04	.1833-01	.1503	527.3
675	27000	25.000	445.00	.1518-02	.1835-02	1835-02	.9000	.2594-04	3136-04	.1882-01	.1458	527.3
675	27000	45.000	446.00	1695-02	2037-02	2037-02	.3000	.2880-04	3481-04	.2088-01	1675	527.5
675	27000	65.000	447.00	2153-02	2603-02	2603-02	.3000	.3680-04	4449-04	.2668-01	2156	527.7
675	27000	90.000	448.00	2339-02	.2827-02	2827-02	.9000	.3997-04	.4832-04	.2899-01	.2310	527.4
675	43800	.00000	449.00	.1498-02	.1811-02	.1811-02	.3000	.2560-04	3094-04	.1859-01	.1451	526.5
675	43800	25.000	450.00	.1350-02	1631-02	.1631-02	.3000	.2307-04	.2788-04	.1676-01	.1294	526.4
675	43800	45.000	451.00	1540-02	.1861-02	1861-02	.3000	.2632-04	.3180-04	.1911-01	.1502	526.6
675	43800	65.000	452.00	.2103-02	2542-02	2542-02	.3000	.3654-04	.4345-04	.2606-01	.1984	527.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3041

OH84B 60-0 SSME NOZZLE

(R4UY4B)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
675	43800	90 000	453 00	.1893-02	2288-02	2288-02	.3000	.3234-04	3910-04	.2346-01	.1811	527.4

DATE 23 FEB 80

CH4B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3042

CH4B 60-0 SSME NOZZLE

(R4UY4B)

SSME NOZZLE

PARAMETRIC DATA

MACH = 5.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 15.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
673	1.003	7.940	39.97	-1.6929-02	205.6	1264	92.86	2211-01	.9759	3751.	.6427-03	.7472-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
673	2424-01	.4052-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
673	.88000-01	315.00	432.00	.2593-02	3126-02	3126-02	.3000	6284-04	.7577-04	.4655-01	.3627	523.0
673	.88000-01	00000	433.00	.2624-02	3163-02	3163-02	.3000	6360-04	.7668-04	.4713-01	.3562	522.6
673	.88000-01	25.000	434.00	.2936-02	3539-02	3539-02	.3000	.7116-04	.8579-04	.5272-01	.4166	522.8
673	.88000-01	45.000	435.00	.4217-02	5084-02	5084-02	.3000	.1022-03	.1232-03	.7576-01	.5745	522.6
673	.88000-01	65.000	436.00	.5405-02	6517-02	6517-02	.3000	.1310-03	.1580-03	.9711-01	.7340	522.5
673	.88000-01	90.000	437.00	.3847-02	.4637-02	.4637-02	.3000	.9325-04	.1124-03	.6919-01	.5339	521.7
673	.88000-01	135.00	438.00	.2218-02	2673-02	2673-02	.3000	.5377-04	.6479-04	.3995-01	.2934	520.7
673	.17500	00000	439.00	.1740-02	2098-02	2098-02	.3000	.4218-04	.5086-04	.3125-01	.2354	522.8
673	.17500	25.000	440.00	.1992-02	2402-02	2402-02	.3000	.4829-04	.5822-04	.3578-01	.2827	522.7
673	.17500	45.000	441.00	.3118-02	3759-02	3759-02	.3000	.7557-04	.9110-04	.5600-01	.4319	522.6
673	.17500	65.000	442.00	.4243-02	5115-02	5115-02	.3000	.1028-03	.1240-03	.7621-01	.5799	522.7
673	.17500	90.000	443.00	.2905-02	3501-02	3501-02	.3000	.7040-04	.8485-04	.5225-01	.4088	521.6
673	.27000	00000	444.00	.1345-02	1622-02	1622-02	.3000	.3260-04	.3931-04	.2416-01	.1986	522.7
673	.27000	25.000	445.00	.1874-02	2260-02	2260-02	.3000	.4543-04	.5477-04	.3367-01	.2615	522.6
673	.27000	45.000	446.00	.2510-02	3026-02	3026-02	.3000	.6083-04	.7334-04	.4509-01	.3627	522.5
673	.27000	65.000	447.00	.2799-02	.3374-02	.3374-02	.3000	.6783-04	.8177-04	.5029-01	.4075	522.3
673	.27000	90.000	448.00	.2063-02	2486-02	2486-02	.3000	.5001-04	.6026-04	.3712-01	.2967	521.3
673	.43800	.00000	448.00	.1086-02	.1310-02	.1310-02	.3000	.2633-04	.3175-04	.1952-01	.1526	522.5
673	.43800	25.000	449.00	.1379-02	.1663-02	.1663-02	.3000	.3343-04	.4030-04	.2479-01	.1919	522.2
673	.43800	45.000	450.00	.1770-02	.2133-02	.2133-02	.3000	.4290-04	.5171-04	.3181-01	.2506	522.2
673	.43800	65.000	451.00	.2013-02	.2427-02	.2427-02	.3000	.4880-04	.5882-04	.3617-01	.2761	522.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3043

OH84B 60-0 SSME NOZZLE

(R4UY4B)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
673	43800	90 000	453 00	1840-02	.2218-02	2218-02	3000	.4461-04	.5376-04	.3311-01	.2565	521.4

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3044

0484B 60-0 SSME NOZZLE

(R4UY4B)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 15.00 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
691	1.993	7.990	39.99	-6942-02	434.6	1305	94.98	.4524-01	2.017	3813.	.1286-02	.7643-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) =.0175
691	3504-01	.2875-01

\*\*\*TEST DATA\*\*\*

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/R FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
691	88000-01	315.00	432.00	.1570-02	1887-02	.1897-02	.3000	.5500-04	6613-04	.1262-01	.3309	529.8
691	88000-01	00000	433.00	.2160-02	2597-02	.2597-02	.9000	.7569-04	9100-04	.5871-01	.4422	529.1
691	89000-01	25.000	434.00	.3157-02	3795-02	.3795-02	.9000	.1106-03	.1330-03	.8572-01	.6750	529.6
691	88000-01	45.000	435.00	.8287-02	9967-02	.9967-02	.3000	.2903-03	.3492-03	.2247	1.696	530.9
691	88000-01	65.000	436.00	.2137-01	.2572-01	.2572-01	.9000	.7487-03	.9012-03	.5773	4.339	533.6
691	88000-01	90.000	437.00	.1130-01	.1359-01	.1359-01	.3000	.3959-03	.4761-03	.3063	2.352	530.9
691	88000-01	135.00	438.00	.2274-02	2734-02	.2734-02	.3000	.7968-04	9580-04	.6178-01	.4517	529.3
691	.17500	00000	439.00	.1550-02	1864-02	.1864-02	.3000	.5432-04	6530-04	.4214-01	.3164	528.9
691	.17500	25.000	440.00	.2038-02	2450-02	.2450-02	.3000	.7140-04	8584-04	.5539-01	.4363	529.0
691	.17500	45.000	441.00	.6529-02	7853-02	.7853-02	.9000	.2288-03	.2751-03	.1771	1.361	530.5
691	.17500	65.000	442.00	.1674-01	.2015-01	.2015-01	.3000	.5864-03	.7060-03	.4516	3.415	534.6
691	.17500	90.000	443.00	.1028-01	.1237-01	.1237-01	.9000	.3602-03	.4333-03	.2787	2.170	531.0
691	.27000	00000	444.00	.1300-02	.1563-02	.1563-02	.9000	.4555-04	.5476-04	.3534-01	.2896	528.6
691	.27000	25.000	445.00	.2331-02	.2802-02	.2802-02	.9000	.8166-04	.9317-04	.6335-01	.4904	529.0
691	.27000	45.000	446.00	.6371-02	7662-02	.7662-02	.9000	.2232-03	.2684-03	.1728	1.385	530.4
691	.27000	65.000	447.00	.1676-01	.2017-01	.2017-01	.3000	.5871-03	.7067-03	.4524	3.644	534.0
691	.27000	90.000	448.00	.9245-02	.1112-01	.1112-01	.9000	.3239-03	.3895-03	.2509	1.996	530.1
691	.43800	.00000	449.00	.1064-02	.1279-02	.1279-02	.9000	.3727-04	.4480-04	.2894-01	.2256	528.3
691	.43800	25.000	450.00	.2010-02	.2416-02	.2416-02	.9000	.7044-04	.8466-04	.5469-01	.4221	528.2
691	.43800	45.000	451.00	.6406-02	.7703-02	.7703-02	.9000	.2245-03	.2699-03	.1739	1.365	529.7
691	.43800	65.000	452.00	.1473-01	.1773-01	.1773-01	.9000	.5161-03	.6211-03	.3984	3.026	532.7



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3045

OH84B 60-0 SSME NOZZLE

(R4UY48)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
691	43800	90 000	453 00	8525-02	.1025-01	.1025-0	.9000	2987-03	.3593-03	.2312	1.782	530.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3046

OH84B 60-0 SSME NOZZLE

(R4UY48)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.010 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BOFLAP = 15.00 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG K	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
697	2.999	7.990	40.00	-6.947-02	668.9	1322.	96.00	.6908-01	3.087	3838.	.1942-02	.7725-07

RUN NUMBER	HREF BTU/P FT2SEC	STN NO REF(R) = 0175
697	4345-01	2342-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG R
697	88000-01	315.00	432.00	8568-03	1028-02	1028-02	9000	.3723-04	4466-04	.2958-01	2300	527.2
697	88000-01	00000	433.00	.2280-02	2735-02	2735-02	.9000	9906-04	1188-03	.7867-01	5931	527.5
697	88000-01	25.000	434.00	4954-02	5945-02	5945-02	9000	2153-03	2583-03	1707	1.345	528.5
697	88000-01	45.000	435.00	1537-01	1845-01	1845-01	.9000	6676-03	8015-03	5281	3.988	530.7
697	88000-01	65.000	436.00	5498-01	6615-01	6615-01	9000	2389-02	2874-02	1.869	14.01	539.1
697	.88000-01	90.000	437.00	.1639-01	1966-01	1966-01	.9000	.7119-03	8544-03	5643	4.338	529.1
697	.88000-01	135.00	438.00	2479-02	2972-02	2972-02	.9000	1077-03	1291-03	8578-01	.6285	525.1
697	.17500	.00000	439.00	1801-02	2160-02	2160-02	9000	7823-04	.9385-04	.6213-01	4668	527.5
697	.17500	25.000	440.00	2966-02	3558-02	3558-02	9000	1288-03	.1546-03	1023	8058	528.0
697	.17500	45.000	441.00	.1336-01	1605-01	1605-01	9000	5807-03	6972-03	4591	3.526	530.9
697	.17500	65.000	442.00	4803-01	5783-01	5783-01	9000	2087-02	2513-02	1.627	12.26	541.9
697	.17500	90.000	443.00	1656-01	1988-01	1988-01	.9000	7196-03	8637-03	5700	4.442	529.5
697	27000	00000	444.00	1411-02	1693-02	1693-02	9000	6132-04	7356-04	.4871-01	3994	527.3
697	27000	25.000	445.00	3927-02	4712-02	4712-02	9000	.1706-03	.2047-03	1.354	1.049	527.9
697	.27000	45.000	446.00	1476-01	.1772-01	1772-01	.9000	6412-03	7699-03	.5071	4.062	530.8
697	27000	65.000	447.00	5104-01	6144-01	6144-01	9000	2218-02	.2670-02	1.732	13.90	540.8
697	27000	90.000	448.00	1186-01	1423-01	.1423-01	9000	.5152-03	6182-03	4090	3.258	527.9
697	43800	.00000	449.00	1199-02	1438-02	1438-02	.9000	5209-04	.6249-04	.4140-01	.3230	527.0
697	.43800	25.000	450.00	4057-02	4868-02	4868-02	9000	.1763-03	.2115-03	1.399	1.080	528.2
697	43800	45.000	451.00	1707-01	2050-01	2050-01	.9000	.7418-03	8906-03	.5868	4.602	530.6
697	43800	65.000	452.00	4088-01	4915-01	4915-01	.9000	.1776-02	.2135-02	1.394	10.57	536.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3047

OH84B 60-0 SSME NOZZLE

(R4UY48)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
697	43800	90.000	453.00	9140-02	.1097-01	.1097-01	.9000	3971-03	4764-03	.3153	2.433	527.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3048

OH84B 60-0 SSME NOZZLE

(R4UY49)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
 BDFLAP = 23.10    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
677	3060	7.900	39.96	-6920-02	101.1	1254	92.99	.1124-01	.4909	3735.	.3262-03	.7483-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175
677	1717-01	5684-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
677	88000-01	315.00	432.00	.2781-02	.3358-02	.3358-02	9000	.4775-04	.5766-04	.3481-01	2710	524.5
677	88000-01	00000	433.00	.2626-02	.3171-02	.3171-02	.9000	.4509-04	.5444-04	.3290-01	.2484	524.1
677	88000-01	25.000	434.00	.2490-02	.3006-02	.3006-02	9000	.4275-04	.5162-04	.3119-01	.2463	524.0
677	88000-01	45.000	435.00	.3035-02	.3666-02	.3666-02	.9000	.5213-04	.6294-04	.3806-01	.2884	523.6
677	88000-01	65.000	436.00	.3697-02	.4463-02	.4463-02	9000	.6347-04	.7662-04	.4635-01	.3502	523.3
677	88000-01	90.000	437.00	.3251-02	.3924-02	.3924-02	.9000	.5581-04	.6737-04	.4078-01	.3144	523.1
677	88000-01	135.00	438.00	.3777-02	.4559-02	.4559-02	.9000	.6485-04	.7827-04	.4741-01	.3478	522.6
677	17500	.00000	439.00	.1677-02	.2025-02	.2025-02	.9000	.2879-04	.3477-04	.2100-01	.1581	524.2
677	17500	25.000	440.00	.1952-02	.2357-02	.2357-02	9000	.3351-04	.4046-04	.2445-01	.1931	524.1
677	17500	45.000	441.00	.2473-02	.2986-02	.2986-02	.9000	.4247-04	.5127-04	.3100-01	.2390	523.7
677	17500	65.000	442.00	.3146-02	.3798-02	.3798-02	.9000	.5401-04	.6521-04	.3943-01	.2999	523.6
677	17500	90.000	443.00	.3179-02	.3838-02	.3838-02	.9000	.5459-04	.6589-04	.3989-01	.3119	522.9
677	27000	00000	444.00	.1500-02	.1932-02	.1932-02	9000	.2748-04	.3318-04	.2004-01	.1646	524.2
677	27000	25.000	445.00	.1814-02	.2191-02	.2191-02	.9000	.3115-04	.3761-04	.2273-01	.1764	524.0
677	27000	45.000	446.00	.2118-02	.2557-02	.2557-02	.9000	.3636-04	.4390-04	.2654-01	.2134	523.7
677	27000	65.000	447.00	.2418-02	.2919-02	.2919-02	.9000	.4151-04	.5011-04	.3031-01	.2454	523.4
677	27000	90.000	448.00	.2825-02	.3410-02	.3410-02	.9000	.4851-04	.5855-04	.3545-01	.2831	522.8
677	43800	00000	449.00	.1505-02	.1817-02	.1817-02	9000	.2584-04	.3120-04	.1886-01	.1474	523.9
677	43800	25.000	450.00	.1362-02	.1644-02	.1644-02	.9000	.2338-04	.2822-04	.1707-01	.1320	523.6
677	43800	45.000	451.00	.1754-02	.2118-02	.2118-02	.9000	.3011-04	.3636-04	.2199-01	.1731	523.5
677	43800	65.000	452.00	.2411-02	.2912-02	.2912-02	.9000	.4140-04	.4999-04	.3022-01	.2305	523.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3049

OH84B 60-0 SSME NOZZLE

(R4UY49)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
677	43800	90.000	453 00	2142-02	.2586-02	2586-02	.9000	.3678-04	.4440-04	.2687-01	.2079	523.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3050

OH84B 60-0 SSME NOZZLE

(R4UY49)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.070 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 23.50 SPDRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
671	1.007	7.940	39.96	-1.1038-01	204.7	1257.	92.34	.2202-01	.9716	3740.	.6435-03	.7431-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
671	.2416-01	4047-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF P=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
671	88000-01	315.00	432.00	.1861-02	2247-02	2247-02	.9000	4497-04	.5429-04	.3293-01	.2564	524.5
671	88000-01	00000	433.00	.1800-02	2173-02	2173-02	.9000	4349-04	.5250-04	.3186-01	.2406	524.1
671	88000-01	25.000	434.00	.3215-02	3881-02	3881-02	.9000	7769-04	.9378-04	.5689-01	.4491	524.4
671	88000-01	45.000	435.00	.4142-02	.5000-02	.5000-02	.9000	1001-03	.1208-03	.7331-01	.5555	524.2
671	88000-01	65.000	436.00	.4511-02	.5445-02	.5445-02	.9000	1090-03	.1316-03	.7988-01	.6033	523.9
671	88000-01	90.000	437.00	.3193-02	.3853-02	.3853-02	.9000	7716-04	.9311-04	.5659-01	.4363	523.3
671	88000-01	135.00	438.00	.2208-02	.2664-02	.2664-02	.9000	.5336-04	.6437-04	.3918-01	.2875	522.4
671	17500	00000	439.00	.1608-02	.1942-02	.1942-02	.9000	.3886-04	.4692-04	.2846-01	.2142	524.4
671	17500	25.000	440.00	.2191-02	.2645-02	.2645-02	.9000	.5294-04	.6390-04	.3876-01	.3061	524.4
671	17500	45.000	441.00	.3261-02	.3936-02	.3936-02	.9000	.7878-04	.9510-04	.5771-01	.4447	524.2
671	17500	65.000	442.00	.3743-02	.4518-02	.4518-02	.9000	.9044-04	.1092-03	.6626-01	.5038	524.1
671	17500	90.000	443.00	.2450-02	.2958-02	.2958-02	.9000	.5920-04	.7143-04	.4342-01	.3395	523.1
671	27000	00000	444.00	.1503-02	.1814-02	.1814-02	.9000	.3631-04	.4883-04	.2659-01	.2184	524.3
671	27000	25.000	445.00	.2114-02	.2552-02	.2552-02	.9000	.5107-04	.6165-04	.3741-01	.2903	524.2
671	27000	45.000	446.00	.2696-02	.3255-02	.3255-02	.9000	.6515-04	.7864-04	.4772-01	.3836	524.1
671	27000	65.000	447.00	.2460-02	.2969-02	.2969-02	.9000	.5944-04	.7174-04	.4356-01	.3527	523.8
671	27000	90.000	448.00	.2176-02	.2626-02	.2626-02	.9000	.5258-04	.6345-04	.3858-01	.3081	523.0
671	43800	00000	449.00	.1317-02	.1589-02	.1589-02	.9000	.3181-04	.3840-04	.2331-01	.1821	524.1
671	43800	25.000	450.00	.1422-02	.1716-02	.1716-02	.9000	.3435-04	.4146-04	.2518-01	.1947	523.8
671	43800	45.000	451.00	.1647-02	.1987-02	.1987-02	.9000	.3979-04	.4802-04	.2917-01	.2296	523.6
671	43800	65.000	452.00	.1753-02	.2116-02	.2116-02	.9000	.4236-04	.5113-04	.3104-01	.2368	524.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3051

OH84B 60-0 SSME NOZZLE

(R4UY49)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
671	43800	90 000	453 00	2209-02	.2665-02	.2665-02	.9000	.5337-04	.6440-04	.3915-01	.3030	523.0

DATE 23 FEB 80

OH849 MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3052

OH849 60-0 SSME NOZZLE

(R4UY49)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 23.10 SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

PUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
693	2.000	7.980	40.00	-1.1042-01	434.5	1302.	94.76	.4523-01	2.016	3808.	.1288-02	.7626-07

PUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
693	3502-01	2871-01

\*\*\*TEST DATA\*\*\*

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/R FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
693	88000-01	315.00	432.00	2154-02	2586-02	.2586-01	.9000	7543-04	9055-04	.5876-01	.4580	522.6
693	88000-01	00000	433.00	2803-02	.3365-02	.3365-01	.9000	.9816-04	1178-03	.7649-01	.5781	522.4
693	88000-01	25.000	434.00	6797-02	8164-02	.8164-01	.9000	2380-03	2859-03	.1851	1.461	524.1
693	88000-01	45.000	435.00	2263-01	2721-01	.2721-0	.9000	7926-03	.9528-03	.6136	4.641	527.5
693	88000-01	65.000	436.00	3173-01	3816-01	.3816-0	.9000	.1111-02	.1336-02	.8588	6.470	528.8
693	88000-01	90.000	437.00	1217-01	1461-01	.1461-0	.9000	.4262-03	.5118-03	.3318	2.558	523.2
693	88000-01	135.00	438.00	2476-02	2972-02	.2972-02	.9000	8673-04	.1041-03	.6775-01	.4976	520.4
693	17500	00000	439.00	2249-02	2700-02	.2700-02	.9000	7875-04	9454-04	.6135-01	.4622	522.6
693	17500	25.000	440.00	3678-02	4417-02	.4417-02	.9000	1288-03	1547-03	.1003	.7919	523.4
693	17500	45.000	441.00	1618-01	.1945-01	.1945-0	.9000	5667-03	6812-03	.4391	3.379	526.9
693	17500	65.000	442.00	2513-01	.3022-01	.3022-01	.9000	8800-03	1058-02	.6796	5.153	529.4
693	17500	90.000	443.00	1141-01	1370-01	.1370-0	.9000	3997-03	4799-03	.3111	2.432	523.3
693	27000	00000	444.00	1856-02	2229-02	.2229-02	.9000	6501-04	7804-04	.5065-01	.4164	522.5
693	27000	25.000	445.00	.4479-02	5379-02	.5379-02	.9000	1569-03	1884-03	.1221	.9475	523.6
693	27000	45.000	446.00	1327-01	1594-01	.1594-0	.9000	4647-03	5584-03	.3606	2.896	525.7
693	27000	65.000	447.00	2025-01	2434-01	.2434-01	.9000	.7090-03	8524-03	.5488	4.434	527.7
693	27000	90.000	448.00	.1041-01	.1250-01	.1250-0	.9000	.3645-03	4376-03	.2840	2.268	522.5
693	43800	00000	449.00	1534-02	.1841-02	.1841-02	.9000	.5370-04	.6447-04	.4187-01	.3275	522.1
693	43800	25.000	450.00	.3638-02	.4368-02	.4368-02	.9000	.1274-03	.1530-03	.9924-01	.7681	522.7
693	43800	45.000	451.00	1010-01	.1213-01	.1213-01	.9000	.3537-03	.4248-03	.2750	2.164	524.1
693	43800	65.000	452.00	1725-01	2074-01	.2074-0	.9000	.6043-03	7263-03	.4681	3.566	526.9



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0484B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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0484B 60-0 SSME NOZZLE

(R4UY49)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
693	43900	90 000	453 00	.1044-01	.1254-01	1254-0	.9000	.3657-03	.4391-03	.2849	2 205	522.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3054

OP84B 60-0 SSME NOZZLE

(R4UY49)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.0110 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 23.110 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

PUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
695	3.030	7.990	40.02	-6963-02	669.0	1313.	95.34	.6909-01	3.087	3825.	.1956-02	.7672-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
695	4340-01	.2332-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PPI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
695	89000-01	315.00	432.00	1412-02	.1695-02	.1695-02	.9000	6129-04	7354-04	4829-01	.3759	524.8
695	89000-01	00000	433.00	3951-02	.4742-02	.4742-02	.9000	1714-03	2058-03	1349	1.018	526.0
695	89000-01	25.000	434.00	1131-01	1359-01	1359-01	.9000	4910-03	.5898-03	3848	3.030	529.1
695	89000-01	45.000	435.00	.4657-01	5609-01	.5609-01	.9000	2021-02	2434-02	1.564	11.76	538.9
695	88000-01	65.000	436.00	7725-01	9306-01	9306-01	.9000	3353-02	4039-02	2.591	19.41	539.9
695	88000-01	90.000	437.00	.1480-01	1778-01	1778-01	.9000	.6423-03	7715-03	5032	3.869	529.1
695	88000-01	135.00	438.00	1936-02	2324-02	2324-02	.9000	8404-04	1008-03	6621-01	.4852	524.8
695	17500	00000	439.00	3344-02	4014-02	4014-02	.9000	1451-03	1742-03	.1142	.8587	525.9
695	17500	25.000	440.00	5456-02	6551-02	6551-02	.9000	2368-03	2843-03	.1861	1.467	527.0
695	17500	45.000	441.00	.3434-01	4133-01	4133-01	.9000	1490-02	.1794-02	1.157	8.861	536.4
695	17500	65.000	442.00	7047-01	8496-01	8496-01	.9000	.8058-02	3687-02	2.353	17.72	543.1
695	17500	90.000	443.00	1470-01	1765-01	.1765-01	.9000	6378-03	.7661-03	4998	3.896	529.0
695	27000	00000	444.00	2885-02	3462-02	3462-02	.9000	.1252-03	.1503-03	9855-01	.8089	525.5
695	.27000	25.000	445.00	7785-02	9348-02	9348-02	.9000	.3379-03	.4057-03	.2653	2.055	527.5
695	.27000	45.000	446.00	2914-01	.3504-01	.3504-01	.9000	1265-02	.1521-02	.9857	7.886	533.2
695	27000	65.000	447.00	5989-01	7217-01	7217-01	.9000	2599-02	3132-02	2.004	16.08	541.5
695	27000	90.000	448.00	1085-01	1303-01	.1303-01	.9000	.4710-03	5656-03	.3699	2.947	527.4
695	43800	00000	449.00	2500-02	2999-02	2999-02	.9000	.1085-03	.1302-03	.8551-01	.6680	524.4
695	43800	25.000	450.00	7118-02	8543-02	8543-02	.9000	.3089-03	.3708-03	2430	1.877	526.1
695	43800	45.000	451.00	3105-01	3732-01	3732-01	.9000	.1348-02	1620-02	1.054	8.265	530.7
695	43800	65.000	452.00	.5028-01	6052-01	6052-01	.9000	.2182-02	2627-02	1.692	12.82	537.4

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY49)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
695	43800	90.000	453.00	.8908-02	1070-01	1070-0	9000	.3866-03	.4642-03	.3036	2.344	527.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3056

OH84B 60-0 SSME NOZZLE

(R4UY50)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.0110 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = .0000 SPOBRK = .0000

\*\*\*TEST CONDIT ONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
767	5029	7.900	39.98	-3466-02	100.1	1251	92.77	.1113-01	.4863	3730.	.3238-01	.7465-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
767	1708-01	.5703-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
767	88000-01	315.00	432.00	2574-02	.3115-02	.3115-02	.9000	4397-04	5319-04	3170-01	.2461	529.7
767	88000-01	.00000	433.00	1708-02	.2066-02	2066-02	.9000	2918-04	.3529-04	2108-01	.1588	528.4
767	88000-01	25.000	434.00	1340-02	.1621-02	1621-02	.9000	2289-04	2769-04	1654-01	1304	528.1
767	88000-01	45.000	435.00	2414-02	.2919-02	2919-02	.9000	.4123-04	4986-04	.2980-01	.2254	527.9
767	88000-01	65.000	436.00	3456-02	.4180-02	4180-02	.9000	5903-04	7139-04	.4265-01	.3215	528.1
767	88000-01	90.000	437.00	3642-02	.4405-02	4405-02	.9000	6221-04	7524-04	.4492-01	.3455	528.5
767	89000-01	135.00	438.00	3758-02	.4545-02	4545-02	.9000	6418-04	.7763-04	.4633-01	.3388	528.8
767	17500	.00000	439.00	.1262-02	.1526-02	1526-02	.9000	2155-04	2607-04	.1556-01	.1169	528.6
767	17500	25.000	440.00	1308-02	.1582-02	1582-02	.9000	2234-04	.2701-04	.1614-01	.1271	528.3
767	17500	45.000	441.00	1926-02	.2329-02	2329-02	.9000	3289-04	3977-04	.2377-01	.1828	527.9
767	17500	65.000	442.00	2996-02	.3623-02	3623-02	.9000	5116-04	6188-04	.3696-01	.2804	528.3
767	17500	90.000	443.00	3229-02	.3905-02	3905-02	.9000	.5515-04	6669-04	.3983-01	.3106	528.3
767	27000	.00000	444.00	1013-02	.1225-02	1225-02	.9000	1729-04	2092-04	.1249-01	.1024	528.5
767	27000	25.000	445.00	1142-02	.1381-02	1381-02	.9000	1950-04	2358-04	.1409-01	.1091	528.0
767	27000	45.000	446.00	1639-02	.1982-02	1982-02	.9000	2800-04	.3386-04	.2024-01	.1623	527.9
767	27000	65.000	447.00	2353-02	.2846-02	2846-02	.9000	.4019-04	.4861-04	.2904-01	.2346	528.1
767	27000	90.000	448.00	2835-02	.3428-02	3428-02	.9000	4841-04	5855-04	.3498-01	.2786	528.1
767	43800	.00000	449.00	9963-03	.1205-02	1205-02	.9000	1702-04	2058-04	.1229-01	.9588-01	528.1
767	43800	25.000	450.00	6830-03	.1068-02	1068-02	.9000	1508-04	.1823-04	.1090-01	.8419-01	527.5
767	43800	45.000	451.00	.1524-02	.1843-02	1843-02	.9000	.2603-04	.3148-04	.1883-01	.1479	527.5
767	43800	65.000	452.00	2265-02	.2740-02	2740-02	.9000	.3869-04	.4679-04	.2795-01	.2128	528.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY50)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
767	43800	90 000	453 00	.2060-02	2491-02	2491-01	.9000	3518-04	.4254-04	.2541-01	.1961	528.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY50)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 0000    ELEVON = 7.500  
 BDFLAP = 0000    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
757	1.043	7.940	39.99	-4654-06	214.1	1265	92.93	.2302-01	1.016	3752.	.6687-03	.7478-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
757	2474-01	3973-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
757	88000-01	315.00	432.00	3709-02	4474-02	4474-02	.9000	.9174-04	1107-03	.6780-01	.5275	525.6
757	88000-01	.00000	433.00	.1822-02	2198-02	2198-02	.9000	.4507-04	5436-04	.3334-01	.2516	525.0
757	88000-01	25.000	434.00	.1783-02	2152-02	2152-02	.9000	.4411-04	5322-04	.3260-01	.2573	525.6
757	88000-01	45.000	435.00	2972-02	3586-02	.3586-02	.9000	.7353-04	8871-04	.5432-01	.4112	525.9
757	88000-01	65.000	436.00	4785-02	5774-02	.5774-02	.9000	.1184-03	.1428-03	.8737-01	.6590	526.5
757	88000-01	90.000	437.00	5699-02	6878-02	.6878-02	.9000	.1410-03	.1701-03	.1040	.8002	527.0
757	88000-01	135.00	438.00	2865-02	3456-02	.3456-02	.9000	.7086-04	8549-04	.5238-01	.3837	525.5
757	17500	.00000	439.00	1295-02	1563-02	.1563-02	.9000	.3204-04	3866-04	.2370-01	.1782	525.2
757	17500	25.000	440.00	.1299-02	1568-02	.1568-02	.9000	.3214-04	3878-04	.2376-01	.1875	525.4
757	17500	45.000	441.00	2304-02	.2779-02	.2779-02	.9000	.5698-04	6875-04	.4210-01	.3242	525.9
757	17500	65.000	442.00	.3962-02	4781-02	.4781-02	.9000	.9800-04	1183-03	.7232-01	.5491	526.7
757	17500	90.000	443.00	4528-02	5465-02	.5465-02	.9000	.1120-03	1352-03	.8265-01	.6450	526.8
757	27000	.00000	444.00	8263-03	9968-03	.9968-03	.9000	.2044-04	2466-04	.1512-01	.1241	525.1
757	27000	25.000	445.00	1195-02	1442-02	.1442-02	.9000	.2957-04	3567-04	.2186-01	.1695	525.4
757	27000	45.000	446.00	1863-02	2248-02	.2248-02	.9000	.4609-04	5561-04	.3406-01	.2735	525.8
757	27000	65.000	447.00	3106-02	3749-02	.3749-02	.9000	.7684-04	9272-04	.5673-01	.4587	526.4
757	27000	90.000	448.00	3572-02	4311-02	.4311-02	.9000	.8837-04	1066-03	.6526-01	.5202	526.2
757	43800	.00000	449.00	9513-03	1147-02	.1147-02	.9000	.2353-04	.2838-04	.1742-01	.1361	524.4
757	43800	25.000	450.00	.9561-03	.1153-02	.1153-02	.9000	.2365-04	.2852-04	.1750-01	.1353	524.5
757	43800	45.000	451.00	.1548-02	.1867-02	.1867-02	.9000	.3830-04	.4619-04	.2833-01	.2228	524.9
757	.43800	65.000	452.00	.2141-02	.2584-02	.2584-02	.9000	.5297-04	.6391-04	.3911-01	.2980	526.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3059

OH84B 60-0 SSME NOZZLE

(R4UY50)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
757	43800	90 000	453 00	2462-02	2971-02	2971-C2	.9000	.6090-04	7349-04	.4497-01	.3474	526.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3060

OH84B 60-0 SSME NOZZLE

(R4UY50)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
755	1.906	7.980	40.06	-4684-06	429.7	1307.	95.13	.4474-01	1.994	3815.	.1269-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
755	3485-01	2894-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
755	.88000-01	315.00	432.00	2084-02	2505-02	.2505-02	.9000	7263-04	.8729-04	.5652-01	.4392	528.4
755	.88000-01	00000	433.00	1787-02	.2147-02	.2147-02	.9000	6228-04	7483-04	.4855-01	3661	527.2
755	.88000-01	25.000	434.00	1662-02	.1997-02	.1997-02	.9000	5794-04	6960-04	.4516-01	.3561	527.1
755	.88000-01	45.000	435.00	3197-02	3841-02	3841-02	.9000	1114-03	1339-03	.8679-01	.6564	527.7
755	.88000-01	65.000	436.00	8480-02	1019-01	1019-01	.9000	2955-03	3552-03	.2298	1.731	529.0
755	.88000-01	90.000	437.00	1955-01	2351-01	2351-01	.9000	6813-03	8194-03	.5281	4.055	531.5
755	.88000-01	135.00	438.00	2203-02	2647-02	2647-02	.9000	7678-04	9226-04	.5980-01	4.376	527.8
755	17500	00000	439.00	.1243-02	1494-02	1494-02	.9000	4333-04	5206-04	3377-01	.2538	527.2
755	17500	25.000	440.00	1410-02	1694-02	1694-02	.9000	4913-04	5903-04	3830-01	3020	527.1
755	17500	45.000	441.00	2700-02	3244-02	3244-02	.9000	9409-04	.1130-03	.7331-01	.5641	527.4
755	17500	65.000	442.00	7467-02	8975-02	8975-02	.9000	2602-03	.3128-03	2023	1.534	529.2
755	17500	90.000	443.00	1512-01	1818-01	1818-01	.9000	.5268-03	.6336-03	4083	3.179	531.6
755	27000	00000	444.00	.9469-03	1138-02	1138-02	.9000	3300-04	3965-04	2573-01	2110	527.1
755	27000	25.000	445.00	1307-02	.1570-02	.1570-02	.9000	4554-04	5470-04	.3551-01	.2752	526.9
755	27000	45.000	446.00	2341-02	2812-02	.2812-02	.9000	.8158-04	9801-04	.6357-01	5101	527.4
755	27000	65.000	447.00	6397-02	7689-02	.7689-02	.9000	2229-03	2680-03	.1734	1.400	528.9
755	27000	90.000	448.00	1136-01	1366-01	.1366-01	.9000	3959-03	.4759-03	.3077	2.449	529.4
755	43800	00000	449.00	8091-03	.9719-03	.9719-03	.9000	2820-04	3387-04	.2199-01	1716	526.7
755	43800	25.000	450.00	1086-02	1305-02	.1305-02	.9000	.3787-04	4543-04	.2955-01	2282	526.4
755	.43800	45.000	451.00	1996-02	2397-02	.2397-02	.9000	6955-04	.8355-04	.5424-01	4262	526.8
755	.43800	65.000	452.00	.4763-02	5724-02	.5724-02	.9000	.1660-03	.1995-03	.1291	.9928	528.7



DATE 23 FEB 80

OH94B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3061

OH84B 60-0 SSME NOZZLE

(R4UY50)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
755	43800	90 000	453 00	.7718-02	9277-02	9277-02	9000	2690-03	.3233-03	.2092	1 614	528.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3062

OH84B 60-0 SSME NOZZLE

(R4UY50)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
745	3.041	7.990	40.06	-3495-02	670.5	1312.	95.27	.6924-01	.3.094	3823	1962-02	.7666-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
745	4344-01	2328-01

\*\*\*TEST DATA\*\*\*

FUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
745	.88000-01	315.00	432.00	2213-02	2661-02	.2661-02	.9000	9516-04	1156-03	.7497-01	5814	532.0
745	.88000-01	00000	433.00	2493-02	2997-02	.2997-02	.9000	.1083-03	.1302-03	.8446-01	6354	531.8
745	.88000-01	25.000	434.00	.968-02	2366-02	.2366-02	.9000	.8550-04	.1028-03	.6663-01	5240	532.3
745	.88000-01	45.000	435.00	4275-02	5141-02	.5141-02	.9000	.1857-03	.2233-03	.1446	1.090	533.2
745	.88000-01	65.000	436.00	1317-01	1585-01	.1585-01	.9000	5722-03	.6986-03	.4441	3.334	535.6
745	.88000-01	90.000	437.00	2324-01	2799-01	.2799-01	.9000	1010-02	.1216-02	.7809	5.976	538.2
745	.88000-01	135.00	438.00	.2455-02	2952-02	.2952-02	.9000	1067-03	.1282-03	.8314-01	6070	532.2
745	17500	.00000	439.00	1799-02	2163-02	.2163-02	.9000	7817-04	.9398-04	.6096-01	4570	531.9
745	17500	25.000	440.00	.1695-02	2037-02	.2037-02	.9000	7361-04	.8850-04	.5739-01	.4514	532.0
745	17500	45.000	441.00	3667-02	.4411-02	.4411-02	.9000	1593-03	.1916-03	.1240	.9511	533.4
745	17500	65.000	442.00	1221-01	.1470-01	.1470-01	.9000	5305-03	.6385-03	.4114	3.109	536.2
745	17500	90.000	443.00	1992-01	2399-01	.2399-01	.9000	.8654-03	.1042-02	.6695	5.195	538.0
745	.27000	00000	444.00	1276-02	1533-02	.1533-02	.9000	5541-04	.6661-04	.4323-01	3537	531.5
745	27000	25.000	445.00	1457-02	1751-02	.1751-02	.9000	.6328-04	.7607-04	.4935-01	3815	531.8
745	27000	45.000	446.00	3370-02	4053-02	.4053-02	.9000	.1464-03	.1761-03	.1140	.9117	533.3
745	27000	65.000	447.00	.1150-01	1384-01	.1384-01	.9000	.4995-03	.6011-03	.3875	3.118	535.9
745	27000	90.000	448.00	1473-01	1772-01	.1772-01	.9000	.6399-03	.7699-03	.4969	3.944	535.0
745	43800	00000	449.00	9361-03	1125-02	.1125-02	.9000	4066-04	.4887-04	.3176-01	.2474	530.6
745	43800	25.000	450.00	.1230-02	1478-02	.1478-02	.9000	5342-04	.6420-04	.4171-01	3215	530.8
745	43800	45.000	451.00	.3018-02	3629-02	.3629-02	.9000	.1311-03	.1577-03	.1022	.8011	532.1
745	43800	65.000	452.00	8411-02	1012-01	.1012-01	.9000	.3654-03	.4396-03	.2840	2.155	534.5

DATE 23 FEB 80

CH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3063

CH84B 6Q-0 SSME NOZZLE

(R4UY50)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
745	43800	90 000	453 00	9923-02	.1194-01	1194-01	.9000	4311-03	.5187-03	.3349	2 576	534.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3064

OH84B 60-0 SSME NOZZLE

(R4UY51)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = 15.00 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
765	5049	7.900	39.98	-3466-02	100.4	1250.	92.69	.1116-01	.4875	3729	.3249-03	.7459-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175
765	1710-01	5692-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
765	88000-01	315.00	432.00	3517-02	.4254-02	.4254-02	.9000	.6014-04	.7274-04	.4336-01	.3369	528.6
765	.88000-01	.00000	433.00	.2683-02	.3244-02	.3244-02	.9000	.4588-04	.5548-04	.3315-01	.2499	527.2
765	88000-01	25.000	434.00	2590-02	.3132-02	.3132-02	.9000	.4429-04	.5355-04	.3201-01	.2524	527.1
765	.88000-01	.45.000	435.00	.3401-02	.4113-02	.4113-02	.9000	.5816-04	.7032-04	.4204-01	.3181	526.9
765	88000-01	65.000	436.00	.4067-02	.4918-02	.4918-02	.9000	.6955-04	.8409-04	.5026-01	.3790	527.0
765	88000-01	90.000	437.00	.3929-02	.4751-02	.4751-02	.9000	.6718-04	.8124-04	.4852-01	.3734	527.4
765	88000-01	135.00	438.00	.3135-02	.3791-02	.3791-02	.9000	.5360-04	.6483-04	.3868-01	.2830	528.0
765	17500	.00000	439.00	.2018-02	.2440-02	.2440-02	.9000	.3451-04	.4173-04	.2492-01	.1873	527.4
765	.17500	.25.000	440.00	.2004-02	.2423-02	.2423-02	.9000	.3427-04	.4143-04	.2476-01	.1952	527.1
765	17500	.45.000	441.00	.2571-02	.3109-02	.3109-02	.9000	.4396-04	.5315-04	.3177-01	.2445	526.9
765	17500	.65.000	442.00	.3472-02	.4198-02	.4198-02	.9000	.5936-04	.7178-04	.4289-01	.3255	527.2
765	17500	.90.000	443.00	.3369-02	.4073-02	.4073-02	.9000	.5760-04	.6965-04	.4161-01	.3247	527.2
765	27000	.00000	444.00	.1582-02	.1913-02	.1913-02	.9000	.2706-04	.3272-04	.1955-01	.1603	527.3
765	27000	.25.000	445.00	.1843-02	.2228-02	.2228-02	.9000	.3151-04	.3810-04	.2278-01	.1765	526.9
765	.27000	.45.000	446.00	.2298-02	.2766-02	.2766-02	.9000	.3912-04	.4730-04	.2828-01	.2269	526.9
765	27000	.65.000	447.00	.2704-02	.3269-02	.3269-02	.9000	.4623-04	.5590-04	.3341-01	.2701	527.0
765	27000	.90.000	448.00	.2964-02	.3583-02	.3583-02	.9000	.5068-04	.6127-04	.3662-01	.2918	527.0
765	.43800	.00000	449.00	.1336-02	.1616-02	.1616-02	.9000	.2285-04	.2762-04	.1651-01	.1289	526.9
765	43800	.25.000	450.00	.1393-02	.1684-02	.1684-02	.9000	.2382-04	.2879-04	.1723-01	.1331	526.4
765	43800	.45.000	451.00	.1756-02	.2123-02	.2123-02	.9000	.3002-04	.3630-04	.2172-01	.1707	526.4
765	43800	.65.000	452.00	.2384-02	.2882-02	.2882-02	.9000	.4076-04	.4928-04	.2945-01	.2243	527.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3065

OH84B 60-0 SSME NOZZLE

(R4UY51)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TC	TAW/TO :	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
765	43800	90 000	453 00	.2502-02	3025-02	3025-C2	.9000	4278-04	5173-04	3091-01	.2387	527.1

DATE 23 FEB 80

OHS4B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3066

OHS4B 60-0 SSME NOZZLE

(R4UY51)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.030    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BOFLAP = 15.30    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
759	1.001	7.940	39.99	-4655-06	206.7	1270.	93.30	.2224-01	.9813	3760.	.6433-03	.7508-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	SIN NO REF(R) = 0175
759	2433-01	4053-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	TIME MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	OTWDT DEG R /SEC	TW DEG R
759	.88000-01	315.00	432.00	3290-02	3969-02	3969-02	.9000	.8003-04	9656-04	5937-01	.4615	527.8
759	.88000-01	00000	433.00	2824-02	3406-02	3406-02	.9000	6869-04	8284-04	5104-01	.3850	526.5
759	.88000-01	25.000	434.00	2905-02	3503-02	3503-02	.9000	7066-04	8522-04	5249-01	.4140	526.7
759	.88000-01	45.000	435.00	3860-02	4655-02	4655-02	.9000	.9389-04	1132-03	6976-01	.5279	526.7
759	.88000-01	65.000	436.00	.4810-02	5802-02	.5802-02	.9000	1170-03	1411-03	.8692-01	.6555	526.8
759	.88000-01	90.000	437.00	3765-02	4541-02	.4541-02	.9000	9158-04	.1105-03	6803-01	.5236	526.8
759	.88000-01	135.00	438.00	2076-02	2504-02	2504-02	.9000	5050-04	.6091-04	3752-01	.2747	526.7
759	17500	.00000	439.00	1949-02	2350-02	.2350-02	.9000	.4741-04	.5718-04	3522-01	.2648	526.7
759	17500	25.000	440.00	2139-02	2579-02	2579-02	.9000	5203-04	.6275-04	3866-01	.3049	526.6
759	17500	45.000	441.00	2865-02	3455-02	3455-02	.9000	6969-04	8405-04	5179-01	.3986	526.6
759	17500	65.000	442.00	3892-02	4694-02	4694-02	.9000	9467-04	.1142-03	7031-01	.5338	527.0
759	17500	90.000	443.00	3095-02	3732-02	3732-02	.9000	7528-04	.9079-04	5594-01	.4366	526.6
759	27000	.00000	444.00	1583-02	1909-02	1909-02	.9000	3851-04	4644-04	2861-01	.2347	526.6
759	27000	25.000	445.00	1898-02	.2290-02	2290-02	.9000	4618-04	5570-04	3432-01	.2660	526.5
759	27000	45.000	446.00	2338-02	.2819-02	2819-02	.9000	.5687-04	6858-04	4226-01	.3392	526.5
759	27000	65.000	447.00	2558-02	.3085-02	3085-02	.9000	6223-04	7505-04	4624-01	.3738	526.6
759	27000	90.000	448.00	2347-02	.2831-02	2831-02	.9000	5710-04	.6886-04	4245-01	.3384	526.3
759	.43800	.00000	449.00	1401-02	1690-02	1690-02	.9000	.3408-04	.4110-04	.2534-01	.1978	526.1
759	.43800	25.000	450.00	1503-02	.1812-02	1812-02	.9000	.3655-04	.4408-04	.2719-01	.2101	525.8
759	.43800	45.000	451.00	1840-02	.2218-02	2218-02	.9000	.4475-04	.5396-04	3328-01	.2616	525.9
759	.43800	65.000	452.00	.1967-02	2373-02	2373-02	.9000	.4786-04	.5772-04	3556-01	.2709	526.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3067

OH84B 60-0 SSME NOZZLE

(R4UY51)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
759	.43800	90 000	453 00	1574-02	1899-02	1699-02	9000	3830-04	.4619-04	2846-01	2199	526 5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3068

OH84B 60-0 SSME NOZZLE

(R4UY51)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.070    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 15.30    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
753	2.020	7.980	40.04	-4578-06	434.4	1293.	94.11	4523-01	2.016	3795.	.1297-02	.7573-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
753	3498-01	2859-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
753	88000-01	315.00	432.00	2437-02	2933-02	2933-02	9000	8524-04	1026-03	6512-01	.5059	528.7
753	88000-01	00000	433.00	2643-02	3180-02	3180-02	9000	.9243-04	1112-03	.7072-01	.5331	527.6
753	88000-01	25.000	434.00	.968-02	2248-02	2248-02	9000	6534-04	.7862-04	5001-01	.3942	527.4
753	88000-01	45.000	435.00	2710-02	3261-02	3261-02	9000	9478-04	1140-03	7251-01	.5485	527.6
753	88000-01	65.000	436.00	5442-02	6550-02	6550-02	.9000	1903-03	2291-03	.1455	1.096	528.3
753	88000-01	90.000	437.00	.1122-01	1351-01	1351-01	.9000	3924-03	.4725-03	.2992	2.299	530.1
753	88000-01	135.00	439.00	2682-02	3228-02	3228-02	9000	9391-04	1129-03	.7172-01	.5247	528.1
753	17500	00000	439.00	.1850-02	2226-02	2226-02	.9000	.6471-04	7787-04	4951-01	.3720	527.6
753	17500	25.000	440.00	.1763-02	2122-02	2122-02	9000	.6167-04	7421-04	.4720-01	.3721	527.4
753	17500	45.000	441.00	.2196-02	2642-02	2642-02	9000	7680-04	9241-04	.5878-01	.4522	527.4
753	17500	65.000	442.00	.4852-02	5840-02	5840-02	9000	1697-03	2043-03	1296	.9828	529.0
753	17500	90.000	443.00	8925-02	1075-01	1075-01	.9000	3122-03	3759-03	2381	1.855	530.1
753	27000	00000	444.00	1296-02	1560-02	1560-02	.9000	4534-04	5456-04	3470-01	.2845	527.4
753	27000	25.000	445.00	1376-02	1655-02	1655-02	9000	4811-04	5788-04	3683-01	.2854	527.1
753	27000	45.000	446.00	.1778-02	2139-02	.2139-02	.9000	6219-04	7483-04	4760-01	.3819	527.3
753	27000	65.000	447.00	3852-02	4637-02	4637-02	9000	1347-03	.1622-03	.1030	.8315	528.6
753	27000	90.000	448.00	7179-02	8642-02	.8642-02	.9000	.2511-03	3023-03	1918	1.527	529.0
753	.43800	00000	449.00	9582-03	.1153-02	.1153-02	9000	.3351-04	4032-04	2567-01	.2003	526.8
753	.43800	25.000	450.00	1076-02	1294-02	1294-02	.9000	3763-04	4527-04	.2883-01	.2227	526.4
753	.43800	45.000	451.00	1489-02	1791-02	1791-02	.9000	.5207-04	.6264-04	3988-01	.3134	526.7
753	.43800	65.000	452.00	2761-02	3323-02	3323-02	9000	.9657-04	.1162-03	.7383-01	.5621	528.1



DATE 23 FEB 80

O-84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3069

O-84B 60-0 SSME NOZZLE

(R4UY51)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG. R
753	43800	90 000	453 00	.6253-02	.7526-02	7526-02	9000	2187-03	.2632-03	1671	1.290	528.6

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3070

OH84B 60-O SSME NOZZLE

(R4UY51)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 15.00    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
747	2.979	7.990	40.06	-4686-06	660.0	1316.	95.56	.6816-01	3.046	3829.	.1925-02	.7690-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
747	4312-01	.2351-C1

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
747	88000-01	315.00	432.00	2591-02	3113-02	.3113-02	.9000	1117-03	1342-03	8761-01	6797	531.5
747	88000-01	00000	433.00	2443-02	2935-02	2935-02	.9000	.1054-03	1266-03	8270-01	.6224	530.9
747	88000-01	25.000	434.00	1944-02	2336-02	2336-02	.9000	8384-04	.1007-03	6580-01	5178	530.9
747	88000-01	45.000	435.00	4400-02	5288-02	5288-02	.9000	.1897-03	2280-03	1487	1.123	531.7
747	88000-01	65.000	436.00	1301-01	.1564-01	1564-01	.9000	5609-03	.6745-03	4384	3.294	534.1
747	88000-01	90.000	437.00	2164-01	2604-01	2604-01	.9000	9333-03	1123-02	7272	5.570	536.5
747	88000-01	135.00	438.00	2293-02	2755-02	2755-02	.9000	9886-04	1188-03	7751-01	.5660	531.7
747	17500	00000	439.00	1778-02	.2135-02	2135-02	.9000	7666-04	9209-04	6018-01	.4515	530.6
747	17500	25.000	440.00	.1694-02	2035-02	.2035-02	.9000	7304-04	8775-04	5734-01	.4513	530.6
747	17500	45.000	441.00	.3889-02	4674-02	4674-02	.9000	1677-03	2015-03	1314	1.009	532.0
747	17500	65.000	442.00	1186-01	1426-01	1426-01	.9000	5114-03	.6150-03	3994	3.020	534.7
747	17500	90.000	443.00	1838-01	2211-01	2211-01	.9000	7926-03	9536-03	6177	4.796	536.4
747	27000	00000	444.00	1296-02	1556-02	1556-02	.9000	.5587-04	6712-04	.4388-01	3593	530.3
747	27000	25.000	445.00	1479-02	1777-02	1777-02	.9000	6379-04	7662-04	.5009-01	.3874	530.4
747	27000	45.000	446.00	3640-02	4375-02	4375-02	.9000	1570-03	1886-03	.1230	9848	532.0
747	27000	65.000	447.00	.1162-01	1398-01	.1398-01	.9000	5011-03	6026-03	3914	3.152	534.6
747	27000	90.000	448.00	1399-01	1682-01	.1682-01	.9000	6033-03	7254-03	.4714	3.743	534.3
747	43800	00000	449.00	.9792-03	1176-02	1176-02	.9000	4223-04	5072-04	.3318-01	2585	529.9
747	43800	25.000	450.00	1240-02	1489-02	1489-02	.9000	.5345-04	.6420-04	.4200-01	3238	529.9
747	43800	45.000	451.00	.3555-02	.4271-02	.4271-02	.9000	.1533-03	1842-03	.1202	9424	531.5
747	43800	65.000	452.00	9035-02	1086-01	.1086-01	.9000	.3896-03	4684-03	.3048	2.314	533.5

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3071

0484B 60-0 SSME NOZZLE

(R4UY51)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	F (TO) BTU/R FT2SEC	H (TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEC. R /SEC	TW DEG. R
747	43800	90 000	453 00	1088-01	1308-01	1308-01	.9000	4692-03	.5640-03	.3671	2 826	533.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3072

OH84B 60-0 SSME NOZZLE

(R4UY52)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.030    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 23.30    SPDBRK = 0000    -

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
763	4981	7.900	39.97	-3462-02	99.31	1252.	92.84	.1104-01	.4822	3732	3209-03	.7471-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
763	1701-01	5729-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
763	.88000-01	315.00	432.00	.4422-02	.5341-02	.5341-02	.9000	.7522-04	.9085-04	.5475-01	.4264	523.8
763	.88000-01	.00000	433.00	.3528-02	.4261-02	.4261-02	.9000	.6001-04	.7247-04	.4370-01	.3301	523.5
763	.88000-01	25.000	434.00	.3242-02	.3915-02	.3915-02	.9000	.5514-04	.6660-04	.4011-01	.3167	524.2
763	.88000-01	45.000	435.00	.3774-02	.4558-02	.4558-02	.9000	.6419-04	.7753-04	.4670-01	.3538	524.2
763	.88000-01	65.000	436.00	.4284-02	.5174-02	.5174-02	.9000	.7287-04	.8801-04	.5301-01	.4003	524.2
763	.88000-01	90.000	437.00	.3815-02	.4608-02	.4608-02	.9000	.6490-04	.7839-04	.4721-01	.3639	524.2
763	.88000-01	135.00	438.00	.3396-02	.4101-02	.4101-02	.9000	.5776-04	.6976-04	.4205-01	.3083	523.7
763	.17500	.00000	439.00	.2563-02	.3095-02	.3095-02	.9000	.4359-04	.5264-04	.3173-01	.2389	523.8
763	.17500	25.000	440.00	.2541-02	.3069-02	.3069-02	.9000	.4322-04	.5220-04	.3145-01	.2484	524.0
763	.17500	45.000	441.00	.2899-02	.3501-02	.3501-02	.9000	.4931-04	.5956-04	.3587-01	.2765	524.2
763	.17500	65.000	442.00	.3479-02	.4203-02	.4203-02	.9000	.5918-04	.7148-04	.4303-01	.3271	524.5
763	.17500	90.000	443.00	.3216-02	.3885-02	.3885-02	.9000	.5471-04	.6608-04	.3981-01	.3111	524.1
763	.27000	.00000	444.00	.2117-02	.2557-02	.2557-02	.9000	.3602-04	.4350-04	.2622-01	.2154	523.6
763	.27000	25.000	445.00	.2333-02	.2817-02	.2817-02	.9000	.3968-04	.4792-04	.2888-01	.2241	523.9
763	.27000	45.000	446.00	.2390-02	.2887-02	.2887-02	.9000	.4065-04	.4910-04	.2958-01	.2377	524.2
763	.27000	65.000	447.00	.2833-02	.3422-02	.3422-02	.9000	.4819-04	.5820-04	.3505-01	.2838	524.2
763	.27000	90.000	448.00	.2547-02	.3076-02	.3076-02	.9000	.4333-04	.5233-04	.3153-01	.2517	523.9
763	.43800	.00000	449.00	.1923-02	.2322-02	.2322-02	.9000	.3272-04	.3950-04	.2384-01	.1864	523.0
763	.43800	25.000	450.00	.1818-02	.2195-02	.2195-02	.9000	.3092-04	.3734-04	.2253-01	.1743	523.1
763	.43800	45.000	451.00	.2075-02	.2508-02	.2508-02	.9000	.3530-04	.4263-04	.2571-01	.2024	523.3
763	.43800	65.000	452.00	.2484-02	.3001-02	.3001-02	.9000	.4226-04	.5104-04	.3073-01	.2344	524.3

DATE 23 FEB 80

OH34B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3073

OH34B 60-0 SSME NOZZLE

(R4UY52)

PUN NUMBER	ZC MS	PHI	T/C NO	H/HREF R=. 0	H/HREF P=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
763	43800	90 000	453 00	1590-02	1920-02	1920-04	9000	2704-04	3266-04	.1966-01	.1520	524.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3074

OH84B 60-0 SSME NOZZLE

(R4UY52)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = 0000    ELEVON = 7.500  
 BDFLAP = 23 'JQ    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
761	1.006	7.940	39.99	-4652-06	206.4	1265.	92.93	.2220-01	.9799	3752.	6449-03	.7478-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
761	2429-01	.4046-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	Phi	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
761	88000-01	315.00	432.00	.3234-02	3906-02	3906-02	.9000	7856-04	9487-04	.5778-01	4488	529.1
761	88000-01	00000	433.00	3316-02	4003-02	4003-02	.9000	.8055-04	9723-04	5936-01	4474	527.7
761	88000-01	25.000	434.00	3645-02	4400-02	4400-02	.9000	.8854-04	1069-03	6525-01	5143	527.8
761	88000-01	45.000	435.00	4624-02	5581-02	5581-02	.9000	1123-03	1356-03	8278-01	.6261	527.7
761	88000-01	65.000	436.00	4875-02	5885-02	5885-02	.9000	.1184-03	1429-03	.8726-01	.6578	527.8
761	88000-01	90.000	437.00	3464-02	4182-02	4182-02	.9000	8414-04	1016-03	.6200-01	4770	527.8
761	88000-01	135.00	438.00	2206-02	2663-02	2663-02	.9000	5358-04	6469-04	3946-01	.2887	528.2
761	17500	00000	439.00	2384-02	2878-02	2878-02	.9000	.5791-04	6991-04	4267-01	.3205	527.9
761	17500	25.000	440.00	.2643-02	.3190-02	.3190-02	.9000	6419-04	7749-04	4731-01	3729	527.7
761	17500	45.000	441.00	3472-02	4191-02	4191-02	.9000	8434-04	1018-03	6216-01	4783	527.6
761	17500	65.000	442.00	3985-02	4810-02	4810-02	.9000	9679-04	1168-03	7131-01	5412	527.9
761	17500	90.000	443.00	2713-02	3275-02	3275-02	.9000	6591-04	.7956-04	4858-01	.3790	527.6
761	27000	00000	444.00	.1981-02	2392-02	2392-02	.9000	4813-04	5810-04	3547-01	.2908	527.8
761	27000	25.000	445.00	.2429-02	2933-02	2933-02	.9000	5902-04	7124-04	4351-01	3371	527.5
761	27000	45.000	446.00	.2918-02	3523-02	3523-02	.9000	7099-04	8557-04	.5226-01	4193	527.5
761	27000	65.000	447.00	.2897-02	3495-02	3495-02	.9000	.7036-04	8494-04	5187-01	.4192	527.5
761	27000	90.000	448.00	2261-02	.2729-02	2729-02	.9000	.5493-04	6630-04	.4050-01	3227	527.3
761	43800	00000	449.00	.1829-02	.2208-02	.2208-02	.9000	.4443-04	.5362-04	.3276-01	2555	527.4
761	43800	25.000	450.00	1839-02	.2219-02	.2219-02	.9000	.4467-04	.5391-04	.3296-01	.2545	526.9
761	43800	45.000	451.00	2071-02	.2500-02	.2500-02	.9000	.5032-04	.6073-04	.3713-01	.2917	526.9
761	.43800	65.000	452.00	.2152-02	.2598-02	.2598-02	.9000	.5229-04	.6311-04	.3854-01	2935	527.5

DATE 23 FEB 60

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3075

OH84B 60-0 SSME NOZZLE

(R4UY52)

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
761	43800	90 000	453 00	1347-02	1626-02	1626-01	9000	3272-04	3949-04	.2412-01	.1863	527.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3076

OH84B 60-0 SSME NOZZLE

(R4UY52)

SSME NOZZLE

## PARAMETRIC DATA

MACH = 8.010 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = 23.10 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
751	1.987	7.980	40.05	-4685-06	435.2	1309.	95.27	.4531-01	2.020	3818.	.1284-02	.7667-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) =.0175
751	3308-01	.2878-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT- DEG R /SEC	TW DEG R
751	89000-01	315.00	432.00	2661-02	3197-02	.3197-02	.9000	9335-04	.1122-03	.7284-01	.5660	528.3
751	89000-01	00000	433.00	3070-02	3688-02	.3688-02	.9000	1077-03	.1294-03	.8407-01	.6336	528.1
751	89000-01	25.000	434.00	2822-02	3391-02	.3391-02	.9000	9900-04	.1190-03	.7720-01	.6081	528.9
751	89000-01	45.000	435.00	4390-02	5276-02	.5276-02	.9000	1540-03	.1851-03	.1200	.9070	529.4
751	89000-01	65.000	436.00	6651-02	7993-02	.7993-02	.9000	.2333-03	.2804-03	.1818	.1369	529.6
751	89000-01	90.000	437.00	4388-02	.5273-02	.5273-02	.9000	.1539-03	.1850-03	.1199	.9219	529.5
751	89000-01	135.00	438.00	.2695-02	.3237-02	.3237-02	.9000	.9454-04	.1136-03	.7381-01	.5400	527.9
751	17500	00000	439.00	.2277-02	.2736-02	.2736-02	.9000	.7989-04	.9599-04	.6235-01	.4683	528.2
751	17500	25.000	440.00	.2275-02	.2734-02	.2734-02	.9000	.7983-04	.9592-04	.6228-01	.4907	528.5
751	17500	45.000	441.00	.3459-02	.4157-02	.4157-02	.9000	.1214-03	.1458-03	.9480-01	.7273	529.2
751	17500	65.000	442.00	.5018-02	.6031-02	.6031-02	.9000	.1760-03	.2116-03	.1371	.1040	529.7
751	17500	90.000	443.00	.3836-02	.4610-02	.4610-02	.9000	.1346-03	.1617-03	.1049	.8177	529.1
751	27000	00000	444.00	.1715-02	.2060-02	.2060-02	.9000	.6016-04	.7228-04	.4697-01	.3850	527.9
751	27000	25.000	445.00	.2034-02	.2444-02	.2444-02	.9000	.7137-04	.8575-04	.5570-01	.4314	528.2
751	27000	45.000	446.00	.2665-02	.3202-02	.3202-02	.9000	.9348-04	.1123-03	.7290-01	.5845	528.9
751	27000	65.000	447.00	.3360-02	.4038-02	.4038-02	.9000	.1179-03	.1417-03	.9186-01	.7417	529.3
751	27000	90.000	448.00	.2855-02	.3431-02	.3431-02	.9000	.1002-03	.1204-03	.7815-01	.6223	528.5
751	.43800	00000	449.00	.1272-02	.1528-02	.1528-02	.9000	.4464-04	.5361-04	.3490-01	.2723	526.9
751	.43800	25.000	450.00	.1467-02	.1762-02	.1762-02	.9000	.5146-04	.6181-04	.4023-01	.3106	527.0
751	.43800	45.000	451.00	.1797-02	.2158-02	.2158-02	.9000	.6303-04	.7571-04	.4925-01	.3869	527.4
751	.43800	65.000	452.00	.1825-02	.2793-02	.2793-02	.9000	.8155-04	.9800-04	.6361-01	.4841	528.7



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY52)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
751	43800	90.000	453 00	2131-02	2561-02	.2561-01	.9000	.7478-04	.8985-04	5835-01	.4502	528 4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3078

OH84B 60-0 SSME NOZZLE

(R4UY52)

SSME NOZZLE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 23.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
749	2.958	7.990	40.06	-4686-06	659.9	1322.	96.00	6815-01	3.045	3838	.1916-02	.7725-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0.175
749	4315-01	2358-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
749	88000-01	315.00	432.00	.2484-02	.2982-02	.2982-02	.9000	1072-03	1287-03	8488-01	.6590	529.9
749	88000-01	00000	433.00	.3391-02	.4070-02	.4070-02	.9000	.1463-03	1757-03	.1159	.8727	529.8
749	88000-01	25.000	434.00	.2616-02	3141-02	3141-02	.9000	.1129-03	1355-03	.8936-01	.7034	530.2
749	89000-01	45.000	435.00	.4563-02	5478-02	5478-02	.9000	.1969-03	2364-03	1557	1.176	530.7
749	89000-01	65.000	436.00	.1153-01	1384-01	.1384-01	.9000	.4974-03	.5975-03	3927	2.953	532.2
749	89000-01	90.000	437.00	.1067-01	1282-01	.1282-01	.9000	.4605-03	.5531-03	.3637	2.792	532.0
749	88000-01	135.00	438.00	.2973-02	3568-02	3568-02	.9000	.1283-03	.1540-03	1016	.7429	529.5
749	17500	00000	439.00	.2546-02	3055-02	3055-02	.9000	.1098-03	1318-03	8702-01	.6532	529.5
749	17500	25.000	440.00	.2409-02	2891-02	2891-02	.9000	.1040-03	1248-03	8234-01	.6484	529.6
749	17500	45.000	441.00	.3949-02	4741-02	4741-02	.9000	.1704-03	2046-03	1347	1.035	530.9
749	17500	65.000	442.00	.8950-02	1075-01	1075-01	.9000	.3862-03	4639-03	.3048	2.308	532.4
749	17500	90.000	443.00	.8721-02	1047-01	1047-01	.9000	.3764-03	4520-03	2973	2.314	531.7
749	27000	00000	444.00	.1974-02	2369-02	2369-02	.9000	.8520-04	1023-03	6753-01	.5532	529.1
749	27000	25.000	445.00	.2227-02	2672-02	2672-02	.9000	.9608-04	1153-03	.7612-01	.5891	529.4
749	27000	45.000	446.00	.3232-02	.3880-02	3880-02	.9000	.1395-03	1675-03	.1103	.8839	530.6
749	27000	65.000	447.00	.6047-02	.7262-02	7262-02	.9000	.2609-03	3134-03	.2062	1.663	531.6
749	27000	90.000	448.00	.7023-02	.8433-02	8433-02	.9000	.3031-03	3639-03	.2396	1.905	531.1
749	43800	.00000	449.00	.1454-02	.1744-02	1744-02	.9000	.6273-04	.7527-04	4977-01	.3880	528.4
749	43800	25.000	450.00	.1810-02	.2172-02	2172-02	.9000	.7811-04	9373-04	.6195-01	.4780	528.5
749	43800	45.000	451.00	.2371-02	.2846-02	2846-02	.9000	.1023-03	.1228-03	.8107-01	.6362	529.4
749	43800	65.000	452.00	.3831-02	.4600-02	4600-02	.9000	.1653-03	.1985-03	.1307	.9939	531.0

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 SSME NOZZLE

(R4UY52)

PUN NUMBER	ZO MS	PHI	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
749	43800	90 000	453 00	5191-02	6232-02	6232-02	9000	.2240-03	2689-03	.1772	1 366	530.6

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3080

0484B 60-0 UPPER BODY FLAP

(R4U229)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BDFLAP = -12.50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
717	5091	7.900	39.99	3469-02	100.3	1242.	92.10	.1115-01	.4869	3717	.3266-03	.7411-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) =.0175
717	1707-01	5674-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
717	00000	28.017	2315.0	2384-02	2880-02	2880-02	9000	4069-04	4916-04	2932-01	.3478	521.1
717	87500	27.275	2316.0	2339-03	2825-03	2825-03	9000	3993-05	4823-05	2882-02	.2204-01	519.9
717	87500	28.017	2317.0	2671-02	3226-02	3226-02	9000	4559-04	5507-04	3287-01	.2647	520.6
717	1.6970	28.017	2319.0	1470-02	1776-02	1776-02	9000	2510-04	3031-04	.1811-01	.1384	520.1
717	1.8370	27.275	2318.0	8641-03	1044-02	1044-02	9000	.1475-04	.1782-04	.1064-01	8134-01	520.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

PAGE 3081

OH84B 60-0 UPPER BODY FLAP

(R4U229)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = -12.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
715	1.013	7.940	39.99	.3469-02	207.7	1264	92.86	2234-01	9860	3751	6495-03	7472-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
715	2436-01	4031-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG. R
715	00000	27.274	2314.0	2504-03	3019-03	.3019-02	.9000	6100-05	7355-05	4519-02	.3991-01	522.9
715	00000	28.017	2315.0	2939-02	3543-02	.3543-02	.9000	7159-04	.8631-04	5303-01	.6285	522.9
715	87500	28.017	2317.0	3315-02	3995-02	.3995-02	.9000	8076-04	9735-04	.5990-01	.4820	522.0
715	1.6970	28.017	2319.0	2391-02	2881-02	.2881-02	.9000	.5825-04	7019-04	4324-01	.3304	521.3
715	1.8370	27.275	2318.0	1069-02	1289-02	1289-02	.9000	2605-04	3140-04	1930-01	.1473	522.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

PAGE 3082

OH84B 60-0 UPPER BODY FLAP

(R4UZ29)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = -12.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
709	2.011	7.980	40.04	1046-01	432.9	1294.	94.18	.4507-01	2.009	3796.	.1292-02	.7579-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
709	3492-01	2865-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
709	00000	27.274	2314.0	4373-03	5254-03	5254-02	.9000	1527-04	.1835-04	1178-01	1041	522.3
709	.00000	28.017	2315.0	5010-02	.6024-02	6024-02	.9000	1750-03	2104-03	1345	1.593	524.8
709	.87500	27.275	2316.0	.2285-03	.2745-03	2745-03	.9000	.7978-05	9584-05	6158-02	4703-01	521.8
709	.87500	28.017	2317.0	4423-02	.5316-02	5316-02	.9000	1545-03	.1856-03	1190	.9568	523.3
709	1.6970	28.017	2319.0	2471-02	.2968-02	.2968-02	.9000	8628-04	.1037-03	.6658-01	.5084	522.0
709	1.8370	27.275	2318.0	.1268-02	.1523-02	.1523-02	.9000	.4426-04	.5318-04	.3415-01	2608	522.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3083

OH84B 60-0 UPPER BODY FLAP

(R4U229)

JPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BDFLAP = -12.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
707	3.005	7.990	40.06	6989-02	671.7	1324	96.14	6937-01	3.100	3841.	.1947-02	.7735-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
707	4355-01	2339-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YC MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
707	00000	27.274	2314.0	3320-03	3987-03	3987-01	.9000	1446-04	1736-04	.1145-01	.1006	532.0
707	00000	28.017	2315.0	7151-02	8590-02	8590-04	.9000	3114-03	.3741-03	2460	2.900	533.6
707	87500	27.275	2316.0	2065-03	2479-03	2479-05	.9000	.8992-05	1080-04	7125-02	5415-01	531.3
707	87500	28.017	2317.0	5868-02	7044-02	7044-04	.9000	2556-03	3068-03	2026	1.622	531.0
707	1.6970	28.017	2319.0	3582-02	4299-02	4299-04	.9000	1560-03	1872-03	1238	9414	530.1
707	1.8370	27.275	2318.0	1582-02	1900-02	1900-04	.9000	.6890-04	8273-04	.5456-01	4146	531.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

PAGE 3084

OH84B 60-0 UPPER BODY FLAP

(R4UZ30)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
719	5000	7.900	39.98	3465-02	100.3	1257.	93.21	.1115-01	.4869	3739	.3227-03	.7501-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
719	1711-01	5715-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
719	00000	27.274	2314.0	4573-03	5516-03	.5516-01	.9000	.7822-05	9435-05	.5750-02	.5081-01	521.5
719	00000	28.017	2315.0	4532-02	5467-02	.5467-02	.9000	.7753-04	9352-04	.5695-01	.6753	522.0
719	87500	27.275	2316.0	.6474-03	7809-03	.7809-03	.9000	.1107-04	1336-04	.8143-02	.6221-01	521.4
719	87500	28.017	2317.0	.6880-02	8299-02	.8299-02	.9000	.1177-03	1420-03	.8653-01	.6964	521.5
719	1.6970	28.017	2319.0	.2522-02	3041-02	.3041-02	.9000	.4314-04	5201-04	.3178-01	.2429	520.1
719	1.8370	27.275	2318.0	.1133-02	1366-02	.1366-02	.9000	.1937-04	.2336-04	.1425-01	.1089	521.1



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U230)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BDFLAP = 00.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
713	9943	7.940	39.99	6941-02	204.3	1266.	93.00	.2198-01	.9699	3754.	.6378-03	.7484-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
713	2417-01	4069-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
713	.00000	27.274	2314.0	.1770-03	.2132-03	.2132-03	.9000	.4279-05	.5154-05	.3190-02	.2821-01	520.1
713	.00000	28.017	2315.0	.3977-02	.4792-02	.4792-02	.9000	.9612-04	.1158-03	.7150-01	.8478	521.8
713	.87500	27.275	2316.0	.1383-03	.1665-03	.1665-03	.9000	.3342-05	.4025-05	.2492-02	.1905-01	520.0
713	.87500	28.017	2317.0	.5562-02	.6702-02	.6702-02	.9000	.1344-03	.1620-03	.1001	.8055	521.3
713	1.6970	28.017	2319.0	.2168-02	.2611-02	.2611-02	.9000	.5239-04	.6310-04	.3907-01	.2987	520.0
713	1.8370	27.275	2318.0	.1051-02	.1266-02	.1266-02	.9000	.2540-04	.3060-04	.1894-01	.1448	520.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3086

OH84B 60-0 UPPER BODY FLAP

(R4UZ30)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
 BDFLAP = 0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
711	1 999	7 980	40 06	.1048-01	436.8	1307.	95.13	.4548-01	2.027	3815.	.1290-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
711	3514-01	.2870-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
711	.00000	27 274	2314 0	.3689-03	4430-03	4430-03	.9000	.1295-04	.1557-04	.1013-01	.8929-01	525.6
711	.00000	28 017	2315 0	.6106-02	.7335-02	.7335-02	.9000	.2145-03	.2577-03	.1673	1 978	527 0
711	.87500	27 275	2316 0	.3585-03	4305-03	4305-03	.9000	.1260-04	.1513-04	.9846-02	.7507-01	525.2
711	.87500	28 017	2317 0	.8400-02	.1009-01	.1009-01	.9000	.2952-03	.3545-03	.2305	1 851	525.8
711	1.6970	28 017	2319 0	.4379-02	.5257-02	.5257-02	.9000	.1539-03	.1847-03	.1204	.9179	524.5
711	1 8370	27 275	2318 0	.2092-02	.2512-02	.2512-02	.9000	.7351-04	.8828-04	.5741-01	.4376	525.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3087

OH84B 60-0 UPPER BODY FLAP

(R4U230)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON -15.00  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
705	3.029	7.990	40.07	3498-02	670.2	1315.	95.49	.6921-01	3.093	3827.	.1956-02	.7684-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = .0175
705	.4345-01	2332-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWOT DEG. R /SEC	TW DEG R
705	00000	27.274	2314.0	6072-03	7298-03	7298-03	.9000	2638-04	3171-04	.2064-01	.1814	532.3
705	.00000	28.017	2315.0	.7013-02	8435-02	.8435-02	.9000	3047-03	.3665-03	2375	2.798	535.1
705	.87500	27.275	2316.0	.8403-03	1010-02	1010-02	.9000	3651-04	.4388-04	.2857-01	.2171	532.1
705	.87500	28.017	2317.0	9308-02	1119-01	1119-01	.9000	4044-03	.4863-03	3158	2.525	533.9
705	1.6970	28.017	2319.0	4649-02	5589-02	5589-02	.9000	2020-03	2428-03	.1580	1.200	532.6
705	1.8370	27.275	2318.0	2522-02	.3032-02	.3032-02	.9000	.1096-03	1317-03	.8569-01	.6509	532.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3088

OH84B 60-0 UPPER BODY FLAP

(R4U231)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BODYFLAP = -12.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
725	4997	7.900	39.98	-1733-01	100.5	1259.	93.36	.1117-01	4878	3742.	.3228-03	.7513-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
725	.1713-01	5716-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.8 TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
725	60000	28.017	2315.0	3015-02	3644-02	3644-02	9000	5163-04	6240-04	3764-01	.4447	529.5
725	87500	28.017	2317.0	3970-02	4798-02	4798-02	9000	6799-04	8216-04	4960-01	.3977	529.1
725	1.6970	28.017	2319.0	2072-02	2504-02	2504-02	9000	3549-04	4288-04	2592-01	.1973	528.2
725	1.8370	27.275	2318.0	1050-02	1269-02	1269-02	9000	1799-04	2173-04	1314-01	.1000	528.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3089

OH84B 60-0 UPPER BODY FLAP

(R4U231)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = -12.50  
BDFLAP = -12.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
739	9893	7.940	39.98	-24.27-01	204.0	1269	93.22	.2194-01	9684	3758	.6353-03	.7502-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF'R) =.0175
739	2416-01	4077-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
739	00000	28.017	2315.0	2997-02	3620-02	.3620-01	9000	7242-04	8746-04	5342-01	6306	531.0
739	.87500	28.017	2317.0	2198-02	2654-02	2654-02	9000	5312-04	6413-04	.3925-01	3145	529.8
739	1.6970	28.017	2319.0	1679-02	2027-02	2027-01	9000	.4057-04	4898-04	2999-01	2282	529.5
739	1.8370	27.275	2318.0	1052-02	1271-02	1271-01	9000	2543-04	3070-04	.1880-01	.1430	529.6

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3090

OH84B 60-0 UPPER BODY FLAP

(R4U231)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.010 ALPHA = 40.00 BETA = 0000 ELEVON = -12.50  
 BDFLAP = -12.50 SPDBPK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
737	2.003	7.980	40.04	-1.2093-01	434.1	1300.	94.62	.4520-01	2.015	3805	.1289-02	.7614-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
737	.3500-01	.2870-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
737	00000	27.274	2314.0	.1626-03	.1958-03	.1958-03	.9000	.5691-05	.6851-05	4370-02	.3841-01	531.8
737	00000	28.017	2315.0	.3747-02	.4514-02	.4514-02	.9000	.1312-03	.1580-03	1004	1.183	534.2
737	.87500	27.275	2316.0	.1398-03	.1683-03	.1683-03	.9000	.4894-05	.5891-05	3759-02	.2657-01	531.6
737	.87500	28.017	2317.0	.4199-02	.5056-02	.5056-02	.9000	.1469-03	.1769-03	.1126	.9009	533.3
737	1.6970	28.017	2319.0	.2473-02	.2977-02	.2977-02	.9000	.8655-04	.1042-03	6644-01	.5049	532.0
737	1.8370	27.275	2318.0	.1163-02	.1400-02	.1400-02	.9000	.4071-04	.4900-04	.3128-01	.2377	531.4

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3091

OH84B 60-0 UPPER BODY FLAP

(R4U231)

UPR BODYFLAP

# PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = 0000    ELEVON = -12.50  
BDFLAP = -12.50    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
727	3.035	7.990	40.06	-2097-01	670.9	1314.	95.41	.6928-01	3.096	3826.	.1960-02	.7678-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175										
727	4347-01	.2330-01										

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
727	00000	27.274	2314.0	3390-03	4065-03	4065-03	.9000	1473-04	1767-04	.1164-01	.1028	523.5
727	00000	28.017	2315.0	8686-02	1043-01	1043-01	.9000	.3775-03	.4535-03	.2961	3.498	529.3
727	87500	27.275	2316.0	.3846-03	.4613-03	4613-03	.9000	.1672-04	2005-04	1320-01	1.007	523.8
727	87500	28.017	2317.0	.5613-02	6736-02	6736-02	.9000	2440-03	2928-03	1922	1.543	526.0
727	1.6970	28.017	2319.0	3880-02	.4656-02	.4656-02	.9000	.1686-03	2024-03	1328	1.012	526.0
727	1.8370	27.275	2318.0	2030-02	.2436-02	2436-02	.9000	.8822-04	1059-03	6952-01	.5300	525.6

DATE 23 FEB 80

CH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3092

CH84B 60-0 UPPER BODY FLAP

(R4UZ32)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = 0000    ELEVON = -12.50  
 BDFLAP = -5.010    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
723	4957	7.900	39.97	-1.1731-01	100.1	1263.	93.66	.1113-01	.4862	3748.	.3207-03	.7536-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO PEF(R) = 0175
723	1711-01	5736-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF P=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
723	.00000	27.274	2314.0	.1509-03	.1819-03	.1819-03	.9000	.2581-05	.3112-05	.1910-02	1686-01	522.8
723	.00000	28.017	2315.0	.3327-02	.4011-02	.4011-02	.9000	.5691-04	.6861-04	.4215-01	.4997	522.1
723	.87500	28.017	2317.0	.3881-02	.4677-02	.4677-02	.9000	.6638-04	.8000-04	.4924-01	3965	520.9
723	1.6970	28.017	2319.0	.2329-02	.2806-02	.2806-02	.9000	.3984-04	.4800-04	.2959-01	.2263	519.9
723	1.8370	27.275	2318.0	.1194-02	.1439-02	.1439-02	.9000	.2042-04	.2462-04	.1514-01	.1156	521.6



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CH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3093

CH84B 60-0 UPPER BODY FLAP

(R4U232)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = -12.50  
BDFLAP = -5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
741	9943	7.940	39.99	-2082-01	204.3	1266.	93.00	.2198-01	.9699	3754.	.6378-03	.7484-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
741	2417-01	4069-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
741	00000	28.017	2315.0	.2628-02	.3175-02	.3175-02	.9000	.6351-04	.7675-04	.4660-01	.5497	532.0
741	.87500	28.017	2317.0	.3618-02	.4372-02	.4372-02	.9000	.8745-04	.1057-03	.6422-01	.5142	531.4
741	1.6970	28.017	2319.0	.1999-02	.2414-02	.2414-02	.9000	.4831-04	.5836-04	.3552-01	.8701	530.4
741	1.8370	27.275	2318.0	.1301-02	.1572-02	.1572-02	.9000	.3145-04	.3799-04	.2313-01	.11759	530.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3094

OH84B 60-0 UPPER BODY FLAP

(R4U232)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = -5.000 SPD BRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. °	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
735	1.997	7.980	40.06	-2095-01	434.8	1304	94.91	.4527-01	2.018	3811.	.1287-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
735	.3504-01	2873-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
735	00000	27.274	2314.0	3566-03	4285-03	4285-03	.9000	.1250-04	.1502-04	9708-02	.8556-01	526.8
735	.00000	28.017	2315.0	4207-02	5057-02	5057-02	.9000	.1474-03	.1772-03	.1144	1.353	527.7
735	.87500	27.275	2316.0	3085-03	3707-03	3707-03	.9000	1081-04	1299-04	8407-02	6407-01	526.1
735	.87500	28.017	2317.0	.5952-02	7151-02	7151-02	.9000	2086-03	2506-03	1621	1.301	526.4
735	1.6970	28.017	2319.0	7026-02	.8442-02	8442-02	.9000	2462-03	2959-03	1913	1.458	526.6
735	1.8370	27.275	2318.0	.3933-02	4728-02	4728-02	.9000	.1378-03	.1657-03	1069	8137	528.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3095

OH84B 60-0 UPPER BODY FLAP

(R4U232)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
BDFLAP = -5.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.5	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO JEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
729	3.003	7.990	40.07	-2097-01	668.3	1320	95.85	6901-01	3.084	3835	1943-02	.7713-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
729	4342-01	.2341-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
729	00000	27.274	2314.0	.1897-03	.2277-03	.2277-03	.9000	.8234-05	.9884-05	.6511-02	5732-01	529.0
729	00000	28.017	2315.0	.5136-02	.6167-02	.6167-02	.9000	.2230-03	.2678-03	1760	2.078	530.3
729	87500	27.275	2316.0	.3015-03	.3618-03	.3618-03	.9000	.1309-04	.1571-04	1035-01	.7877-01	528.9
729	87500	28.017	2317.0	.6942-02	.8333-02	.8333-02	.9000	.3014-03	.3618-03	2382	1.910	529.2
729	1.6970	28.017	2319.0	.4714-02	.5658-02	.5658-02	.9000	.2046-03	.2456-03	.1619	1.232	528.8
729	1.8370	27.275	2318.0	.1752-02	.2102-02	.2102-02	.9000	.7605-04	.9128-04	.6015-01	4578	528.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3096

OH84B 60-0 UPPER BODY FLAP

(R4U233)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.500    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
 BDFLAP = .0000    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. °	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
721	5028	7 900	39 98	-.1386-01	100 9	1257	93 21	1121-01	4897	3739.	.3245-03	.7501-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
721	1715-01	5699-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG R
721	00000	27 274	2314 0	3482-03	4204-03	4204-03	.9000	.5974-05	7212-05	4373-02	.3858-01	524 7
721	00000	28 017	2315.0	3805-02	4594-02	4594-02	.9000	6527-04	7881-04	4777-01	.5656	524.9
721	.87500	27 275	2316 0	4803-03	5798-03	5798-03	.9000	.8238-05	9945-05	.6033-02	4601-01	524 4
721	.87500	28 017	2317 0	.6668-02	8050-02	8050-02	.9000	.1144-03	.1381-03	8377-01	.6732	524 4
721	1 6970	28 017	2319 0	2377-02	2868-02	2868-02	.9000	.4077-04	4920-04	2992-01	.2284	522.9
721	1 8370	27 275	2318.0	1387-02	1675-02	1675-02	.9000	.2380-04	2873-04	1744-01	.1330	524.0

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OH84B MODEL 60-0 IN THE AEDC VK\* HYPERSONIC TUNNEL

PAGE 3097

OH84B 60-0 UPPER BODY FLAP

(R4U233)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVGN = -12.50  
BDFLAP = 0000 SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
743	1.018	7.940	39.99	-2081-01	209.4	1267	93.08	2253-01	9941	3755	6532-03	.7490-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
743	.2447-01	4021-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
743	00000	28.017	2315.0	3657-02	4419-02	4419-02	9000	8950-04	1081-03	.6577-01	7759	531.9
743	87500	28.017	2317.0	5029-02	.6075-02	6075-02	.9000	1231-03	1487-03	9051-01	.7248	531.3
743	1.6970	28.017	2319.0	2009-02	2426-02	2426-02	9000	4916-04	5937-04	3621-01	2754	530.0
743	1.8370	27.275	2318.0	9857-03	1190-02	1190-02	9000	2412-04	2914-04	1777-01	.1351	530.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3098

OH84B 60-0 UPPER BODY FLAP

(R4U233)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
733	1.990	7.980	40.04	-2091-01	433.8	1305.	94.98	.4516-01	2.013	3813.	.1283-02	.7643-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
733	3501-01	2877-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/10	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
733	.00000	27.274	2314.0	2465-03	2963-03	2963-03	9000	8629-05	.1037-04	.6699-02	5900-01	528.3
733	.00000	28.017	2315.0	6539-02	.7865-02	.7865-02	.9000	.2289-03	2753-03	1771	2.090	531.1
733	87500	27.275	2316.0	4091-03	.4918-03	.4918-03	.9000	1432-04	1722-04	1112-01	.8463-01	528.5
733	87500	28.017	2317.0	8134-02	.9782-02	.9782-02	.9000	.2848-03	3424-03	.2205	1.767	530.3
733	1.6970	28.017	2319.0	.3841-02	.4618-02	.4618-02	.9000	.1345-03	.1617-03	.1043	.7933	529.3
733	1.8370	27.275	2318.0	.1810-02	.2176-02	.2176-02	.9000	.6238-04	.7619-04	.4917-01	.3742	528.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3099

OH84B 60-0 UPPER BODY FLAP

(R4UZ33)

UPP BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
BDFLAP = 0.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	O PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
731	3.017	7.990	40.06	-2.096-01	671.5	1320	95.85	.6935-01	3.099	3835.	.1953-02	.7713-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
731	4352-01	2335-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
731	00000	27.274	2314.0	4514-03	5415-03	.5415-03	.9000	1964-04	2357-04	1557-01	1371	527.3
731	00000	28.017	2315.0	7525-02	9030-02	9030-02	9000	.3275-03	3930-03	2592	3.064	528.2
731	87500	27.275	2316.0	7975-03	9568-03	.9568-03	9000	3471-04	.4164-04	2751-01	2096	527.0
731	87500	28.017	2317.0	9775-02	1173-01	1173-01	9000	4254-03	5103-03	3374	2.708	526.6
731	1.6970	28.017	2319.0	5323-02	6384-02	.6384-02	9000	.2317-03	.2778-03	.1840	1.403	525.4
731	1.8370	27.275	2318.0	2586-02	3103-02	3103-02	9000	.1125-03	1350-03	.8922-01	.6796	527.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3100

OH84B 60-0 UPPER BODY FLAP

(R4U23)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = -12.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	PHO SLUGS /FT3	MU LB-SEC /FT2
633	5017	7.900	39.93	-3.449-02	100.0	1252.	92.84	.1112-01	.4857	3732	3232-03	.7471-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
633	1707-01	5799-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YG MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO TAW/0	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	QTDOT DEG. R /SEC	TW DEG. R
633	00000	28.017	2315.0	1110-02	1343-02	1343.02	.9000	1895-04	.2293-04	.1370-01	.1618	529.1
633	87500	28.017	2317.0	1834-02	2219-02	2219.02	.9000	.3132-04	.3788-04	.2263-01	.1815	529.0
633	1.6970	28.017	2319.0	2280-02	2758-02	2758.02	.9000	.3893-04	.4708-04	.2814-01	.2142	528.7
633	1.8370	27.275	2318.0	8617-03	.1042-02	.1042.02	.9000	.1471-04	.1779-04	.1062-01	.8081-01	529.6



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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL ;

PAGE 3101

OH84B 60-0 UPPER BODY FLAP

(R4UZ34)

UPR BODYFLAP

# PARAMETRIC DATA

MACH = 6.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = -12.50 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
659	1.001	7.940	39.97	-1.4645-06	206.7	1270.	93.30	.2223-01	9811	3760.	6431-03	.7508-07

RUN NUMBER	HREF BTU/ R FT2SEC	SIN NO REF(R) = 0175
653	2432-01	4053-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
659	00000	27.274	2314.0	4241-03	5108-03	5108-03	.3000	1032-04	1242-04	.7715-02	6818-01	521.7
659	.00000	28.017	2315.0	2006-02	2417-02	2417-02	.3000	.4880-04	5878-04	.3649-01	.4327	521.9
659	87500	27.275	2316.0	1739-03	2094-03	2094-03	.3000	.4231-05	5094-05	.3168-02	.2420-01	520.9
659	87500	28.017	2317.0	2837-02	3417-02	3417-02	.3000	.6902-04	8311-04	.5167-01	.4160	521.0
659	1.6970	28.017	2319.0	2332-02	.2807-02	.2807-02	.3000	.5672-04	6828-04	.4252-01	.3251	519.9
659	1.8370	27.275	2318.0	1295-02	1559-02	1559-02	.3000	.3149-04	3791-04	.2359-01	1803	520.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3102

OH84B 60-0 UPPER BODY FLAP

(R4UZ34)

UPR BODY FLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = -12.50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
647	1.985	7.980	40.00	3471-02	436.3	1312.	95.49	.4542-01	2.025	3823.	.1284-02	.7684-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175
647	3E 4-01	2878-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
647	00000	27.274	2314.0	3365-03	4044-03	.4044-03	3000	.1182-04	.1421-04	.9239-02	.8129-01	530.3
647	00000	28.017	2315.0	2624-02	3152-02	.3152-02	3000	.9219-04	.1108-03	.7209-01	.8515	529.7
647	87500	27.275	2316.0	.231-03	1479-03	.1479-03	3000	.4327-05	.5199-05	.3385-02	.2576-01	529.3
647	87500	28.017	2317.0	.4713-02	5662-02	.5662-02	3000	.1656-03	.1989-03	.1296	1.039	529.1
647	1.6970	28.017	2319.0	.3211-02	3857-02	.3857-02	3000	.1128-03	.1355-03	.8843-01	.6733	528.0
647	1.8370	27.275	2318.0	.1361-02	.1635-02	.1635-02	3000	.4782-04	.5745-04	.3742-01	.2847	529.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3103

OH84B 60-0 UPPER BODY FLAP

(R4U234)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = -12.50 SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T JCG R	P PSIA	O PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
649	3.013	7.990	40.03	6967-02	670.5	1320.	-55.85	.6924-01	3.094	3835	.1950-02	.7713-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
649	4349-01	2327-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	1AW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
649	00000	27.274	2314.0	4278-03	5134-03	5134-03	.9000	.1860-04	2232-04	1472-01	.1297	528.2
649	00000	28.017	2315.0	4644-02	5577-02	5577-02	.9000	2019-03	2425-03	.1592	1.879	531.3
649	87500	27.275	2316.0	2126-03	2551-03	2551-03	.9000	9245-05	1109-04	.7318-02	.5572-01	528.0
649	87500	28.017	2317.0	4518-02	5424-02	5424-02	.9000	.1965-03	.2359-03	.1552	1.244	529.7
649	1.6970	28.017	2319.0	3429-02	4117-02	4117-02	.9000	.1491-03	1790-03	.1178	.8964	529.5
649	1.8370	27.275	2318.0	1677-02	2013-02	2013-02	.9000	.7293-04	.8754-04	.5768-01	.4390	528.7

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CH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3104

CH84B 60-0 UPPER BODY FLAP

(R4U235)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = -5.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PW/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
635	4992	7.900	39.96	-3.3458-02	99.17	1249	52.62	.1102-01	4815	3727.	.3212-03	.7453-07
RUN NUMBER	HREF BTU/P FT2SEC	SIN NO REF(R) = 0175										
635	1023-01	5725-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
635	00000	28.017	2315.0	2048-02	2478-02	.2478-02	9000	.3480-04	4211-04	2506-01	.2962	528.6
635	.87500	28.017	2317.0	3172-02	3836-02	.3836-02	9000	5389-04	5517-04	.3889-01	.3121	527.0
635	1.6970	28.017	2319.0	2009-02	.2428-02	.2428-02	9000	3414-04	4126-04	2469-01	.1883	525.3
635	1.8370	27.275	2318.0	5287-03	6387-03	.6387-03	9000	.8984-05	1085-04	6516-02	.4973-01	523.4

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OH84B MODEL 60-0 IN THE AEDC VKF \*PERSONIC TUNNEL

PAGE 3105

OH84B 60-0 UPPER BODY FLAP

(R4U235)

UPR BODYFLAP

# PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = -5.000 SPDRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
657	9860	7.940	39.99	-4654-06	202.4	1265.	42.93	.2177-01	.9606	3752.	.6322-03	.7478-07
PUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) - 0175										
657	2405-01	4086-01										

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	1/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	D*WDT DEG. R /SEC	TW DEG. R
657	00000	27.274	2314.0	.3120-03	.3766-03	.3766-03	9000	.7505-05	.9057-05	5537-02	.4880-01	526.8
657	00000	28.017	2315.0	.3002-02	.3625-02	.3625-02	9000	.7221-04	.8718-04	5318-01	.6285	528.3
657	87500	27.275	2316.0	.1671-03	.2016-03	.2016-03	9000	.4019-05	.4850-05	.2965-02	.2259-01	526.9
657	87500	28.017	2317.0	.4119-02	.4972-02	.4972-02	3000	.9906-04	.1196-03	.7298-01	.5855	527.9
657	1.6970	28.017	2319.0	.2529-02	.3052-02	.3052-02	3000	.6082-04	.7341-04	.4486-01	.3417	527.2
657	1.8370	27.275	2318.0	.1446-02	.1746-02	.1746-02	9000	.3479-04	.4199-04	.2566-01	.1954	527.2

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3106

OH84B 60-0 UPPER BODY FLAP

(R4U235)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
 BODYFLAP = -5.000    SPDBRK = .0000

## \*\*\*TEST CONDITION\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
645	1.937	7.980	40.01	-4664-06	434.4	1303.	34.84	.4522-01	2.016	3810.	.1287-02	.7631-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175
645	3502-01	2873-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
645	00000	27.274	2314.0	.2576-03	.3102-03	.3102-03	9000	.9022-05	1086-04	6933-02	.6087-01	534.3
645	00000	28.017	2315.0	.4456-02	.5368-02	.5368-02	9000	.1561-03	1880-03	1196	1.408	536.1
645	.87500	27.275	2316.0	.1749-02	.2106-02	.2106-02	9000	.6124-04	7376-04	.4700-01	.3565	535.3
645	.87500	28.017	2317.0	.5910-02	.7118-02	.7118-02	9000	.2070-03	2493-03	.1588	1.269	535.5
645	1.6970	28.017	2319.0	.3634-02	.4377-02	.4377-02	9000	.1273-03	.1533-03	.9771-01	.7413	535.0
645	1.8370	27.275	2318.0	.1775-02	.2138-02	.2138-02	9000	.6218-04	.7468-04	.4775-01	.3623	534.7

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OH94B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3107

OH84B 60-0 UPPER BODY FLAP

(R4U235)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BOFLAP = -5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

PUN NUMBER	PN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
655	2.999	7.990	40.01	6352-02	675.0	1330	16.58	6970-01	3.115	3849.	.1948-02	.7772-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175
655	4369-01	2340-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.8 TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
655	00000	27.274	2314.0	5568-03	6677-03	6677-03	9000	2433-04	2917-04	1947-01	.1714	529.3
655	00000	28.017	2315.0	5630-02	6753-02	6753-02	9000	2460-03	2950-03	1968	2.324	529.8
655	87500	27.275	2316.0	5229-03	6270-03	6270-03	9000	2284-04	2739-04	1830-01	.1393	528.5
655	87500	28.017	2317.0	7411-02	8895-02	8895-02	9000	3238-03	3891-03	.2595	2.081	528.2
655	1.6970	28.017	2319.0	5279-02	6329-02	6329-02	9000	2307-03	2765-03	.1850	1.409	527.6
655	1.8370	27.275	2318.0	2497-02	2994-02	2994-02	9000	1091-03	1308-03	.8739-01	.6652	528.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3108

OH84B 60-0 UPPER BODY FLAP

(R4U236)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = 0000    ELEVON = -5.000  
 BDFLAP = .0010    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
637	5033	7.900	39.93	-6897-02	99.99	1249.	92.62	.1111-01	.4855	3727.	.3238-03	.7453-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) =.0175
637	1706-01	5702-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
637	00000	28.017	2315.0	2872-02	3476-02	.3476-02	.9000	4900-04	.5931-04	.3519-01	.4155	530.4
637	87500	27.275	2316.0	1352-03	1635-03	1635-03	.9000	2306-05	2791-05	1661-02	.1264-01	528.4
637	87500	28.017	2317.0	4388-02	.5309-02	5309-02	.9000	.7486-04	9058-04	5384-01	.4315	529.5
637	1.6970	28.017	2319.0	2045-02	.2474-02	.2474-02	.9000	3490-04	4221-04	.2514-01	.1913	528.4
637	1.8370	27.275	2318.0	1565-02	.1893-02	.1893-02	.9000	.2670-04	.3230-04	.1923-01	.1464	528.2



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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3109

OH84B 60-0 UPPER BODY FLAP

(R4U236)

UPP BODYFLAP

# PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = 0000 SPOBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
663	1 016	7 940	39 97	- 4643-06	207.3	1260.	92 56	2230-01	9840	3745.	.6501-03	.7449-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (P) = .0175
663	2433-01	4028-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
663	.00000	27 274	2314 0	1477-03	.1782-03	1782-03	.9000	1.3592-05	4335-05	2639-02	.2329-01	524.8
663	.00000	28 017	2315 0	4154-02	5014-02	5014-03	9000	1011-03	1220-03	7422-01	.8786	525.3
663	.87500	28 017	2317 0	6071-02	7326-02	7326-03	.9000	1477-03	1782-03	.1086	.8729	524.2
663	1 6970	28 017	2319 0	.2702-02	3259-02	3259-03	9000	6573-04	.7928-04	.4844-01	.3698	522.7
663	1 8370	27.275	2318 0	1401-02	.1690-02	1690-03	9000	3407-04	.4111-04	2507-01	.1913	523.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3110

OH84B 60-0 UPPER BODY FLAP

(R4UZ36)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = 0000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
643	2.006	7.980	39.98	-11040-01	434.5	1299.	94.54	4523-01	2.016	3804.	.1291-02	.7608-07

PJN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175
643	3501-01	2867-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
643	.00000	27.274	2314.0	3559-03	.4283-03	.4283-03	9000	1246-04	1499-04	.9571-02	.8419-01	530.5
643	.00000	28.017	2315.0	5629-02	6779-02	6779-02	.9000	.1970-03	2373-03	1508	1.778	533.2
643	.87500	27.275	2316.0	3364-03	.4049-03	4049-03	.9000	.1178-04	.1417-04	.9043-02	6876-01	530.7
643	.87500	28.017	2317.0	.8532-02	1027-01	1027-01	.9000	2987-03	.3596-03	.2288	1.831	532.7
643	1.6970	28.017	2319.0	.4444-02	.5350-02	5350-02	.9000	.1556-03	.1873-03	.1193	.9068	531.7
643	1.8370	27.275	2318.0	1916-02	.2307-02	2307-02	9000	.6709-04	8075-04	.5149-01	3914	531.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3111

OH84B 60-0 UPPER BODY FLAP

(R4U236)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.00    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
BOFLAP = 0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
653	2.998	7.990	40.02	.6962-02	672.4	1327.	96.36	.6944-01	3.103	3845.	.1945-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
653	.4359-01	.2341-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
653	.00000	27.274	2314.0	.6146-03	.7377-03	.7377-03	.9000	.2679-04	.3216-04	.2129-01	.1872	531.9
653	.00000	28.017	2315.0	.7092-02	.8517-02	.8517-02	.9000	.3091-03	.3712-03	.2452	2.891	533.5
653	.87500	27.275	2316.0	.1315-02	.1578-02	.1578-02	.9000	.5732-04	.6880-04	.4557-01	.3463	531.6
653	.87500	28.017	2317.0	.9925-02	.1191-01	.1191-01	.9000	.4326-03	.5193-03	.3438	2.753	531.9
653	1.6970	28.017	2319.0	.5325-02	.6390-02	.6390-02	.9000	.2321-03	.2785-03	.1849	1.406	530.3
653	1.8370	27.275	2318.0	.8826-02	.3392-02	.3392-02	.9000	.11232-03	.1478-03	.8796-01	.7445	531.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3112

OH84B 60-0 UPPER BODY FLAP

(R4U237)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BOFLAP = 5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
639	5035	7.900	39.95	-1383-01	99.79	1247.	92.47	1109-01	.4845	3724.	.3237-03	.7441-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
639	1704-01	5702-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
639	00000	28.017	2315.0	.3833-02	.4634-02	.4634-02	.9000	.6531-04	.7896-04	.4708-01	.5572	525.7
639	87500	28.017	2317.0	.6706-02	.8107-02	.8107-02	.9000	.1143-03	.1381-03	.8245-01	.6623	525.1
639	1.6970	28.017	2319.0	.2594-02	.3135-02	.3135-02	.9000	.4420-04	.5341-04	.3194-01	.2437	523.9
639	1.8370	27.275	2318.0	.1218-02	.1472-02	.1472-02	.9000	.2075-04	.2508-04	.1497-01	.1141	525.1

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3113

OH84B 60-0 UPPER BODY FLAP

(R4U237)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.1100 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = 5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
661	1.021	7.940	39.97	-.4644-06	206.8	1254	92.12	2224-01	.9816	3736.	.6517-03	.7413-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
661	2428-01	4021-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TJ	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG R
661	.00000	27.274	2314.0	.2238-03	.2703-03	.2703-03	.9000	.5434-05	.6563-05	.3961-02	.3494-01	524.8
661	.00000	28.017	2315.0	.5660-02	.6836-02	.6836-02	.9000	.1374-03	.1660-03	.1001	1.185	525.3
661	.87500	27.275	2316.0	.1420-03	.1714-03	.1714-03	.9000	.3446-05	.4162-05	.2513-02	.1917-01	524.4
661	.87500	28.017	2317.0	.7648-02	.9235-02	.9235-02	.9000	.1857-03	.2242-03	.1354	1.088	524.4
661	1.6970	28.017	2319.0	.3248-02	.3921-02	.3921-02	.9000	.7885-04	.9519-04	.5760-01	.4396	523.3
661	1.8370	27.275	2318.0	.1818-02	.2195-02	.2195-02	.9000	.4413-04	.5329-04	.3218-01	.2455	524.4

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3114

OH84B 60-0 UPPER BODY FLAP

(R4U237)

UPP BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = 5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. P	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
641	2 028	7 980	39 99	- 6938-02	435.7	1292.	94.03	4536-01	2 022	3794.	.1302-02	.7567-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
641	.3502-01	2854-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HRE R= TAW/T )	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/P FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
641	.00000	27 274	2314 0	6245-03	7505-03	7505-13	.9000	.2187-04	2628-04	.1683-01	.1487	522.2
641	.00000	28 017	2315.0	.6378-02	7668-02	.7668-12	.9000	.2234-03	2685-03	.1715	2.032	523.8
641	.87500	27.275	2316.0	.1533-02	.1842-02	.1842-12	.9000	.5368-04	6452-04	.4128-01	.3152	522.6
641	.87500	28.017	2317 0	.1040-01	.1250-01	.1250-11	.9000	.3642-03	4378-03	.2798	2.249	523.5
641	1.6970	28 017	2319 0	.5924-02	.7120-02	.7120-12	.9000	.2075-03	.2494-03	.1595	1.218	522.7
641	1.8370	27 275	2318.0	.2416-02	.2904-02	.2904-12	.9000	.8461-04	1017-03	.6510-01	.4971	522.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3115

OH84B 60-0 UPPER BODY FLAP

(R4U237)

UFR BODYFLAP

PARAMETRIC DATA

MACH = 8.010 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = 5.010 SPDBRK = .0000

\*\*\*TEST CONDIT IONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
651	2.990	7.990	40.05	3490-02	671.4	1328	96.43	.6934-01	3.098	3846.	.1941-02	.7760-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
651	4356-01	2344-01

\*\*\*TEST DATA\*\*\*

PUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
651	.00000	27.274	2314.0	.6616-03	.7932-03	.7932-03	.9000	.2882-04	.3425-04	.2307-01	.2033	527.2
651	.00000	28.017	2315.0	.7970-02	.9559-02	.9559-02	.9000	.3472-03	.4164-03	.2772	3.276	529.1
651	.87500	27.275	2316.0	.2322-02	.2784-02	.2784-02	.9000	.1011-03	.1213-03	.8091-01	.6161	527.7
651	.87500	28.017	2317.0	.1263-01	.1514-01	.1514-01	.9000	.5500-03	.6595-03	.4399	3.528	528.0
651	1.6970	28.017	2319.0	.6306-02	.7558-02	.7558-02	.9000	.2747-03	.3292-03	.2202	1.678	526.2
651	1.8370	27.275	2318.0	.3136-02	.3759-02	.3759-02	.9000	.1366-03	.1638-03	.1094	.8331	527.0

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3116

0484B 60-0 UPPER BODY FLAP

(R40Z38)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = -12.00    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
631	5096	7.900	39.97	.1384-01	101.0	1247.	92.47	1122-01	.4903	3724.	.3276-03	.7441-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
631	1714-01	.5668-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
631	00000	28.017	2315.0	.6264-03	.7571-03	.7571-03	.9000	.1074-04	.1298-04	.7751-02	.9178-01	524.7
631	87500	28.017	2317.0	.2120-02	.2562-02	.2562-02	.9000	.3633-04	.4392-04	.2623-01	.2107	524.8
631	1.6970	28.017	2319.0	.1275-02	.1541-02	.1541-02	.9000	.2185-04	.2641-04	.1578-01	.1204	524.4
631	1.8370	27.275	2318.0	.4921-03	.5950-03	.5950-03	.9000	.8435-05	.1020-04	.6082-02	.4637-01	525.6



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3117

OH84B 60-0 UPPER BODY FLAP

(R4UZ38)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.030    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = -12.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
605	1.013	7.940	39.97	1385-01	206.2	1258.	92.42	.2218-01	9787	3742.	.6477-03	.7437-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
605	2425-01	4035-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
605	00000	27.274	2314 0	2710-03	.3267-03	3267-C3	.9000	.6572-05	7924-05	4846-02	.4285-01	520.4
605	.00000	28.017	2315 0	1973-02	2378-02	2378-C2	9000	4784-04	5768-04	.3527-01	.4186	520.4
605	87500	27.275	2316 0	3241-03	3907-03	3907-C3	.9000	7862-05	9477-05	.5800-02	.4434-01	519.9
605	87500	28.017	2317 0	2908-02	3503-02	3503-C2	.9000	.7049-04	.8497-04	.5200-01	.4189	519.9
605	1.6970	28.017	2319 0	1555-02	1874-02	1874-C2	.9000	.3772-04	4546-04	.2787-01	.2132	518.8
605	1.8370	27.275	2318 0	1201-02	1448-02	1448-C2	9000	.2914-04	3512-04	2150-01	.1644	519.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3118

OH84B 60-0 UPPER BODY FLAP

(R4U238)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = -12.50    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
603	2 009	7 980	39 99	.1734-01	434 1	1297.	94.40	.4519-01	2 014	3801.	.1292-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
603	3498-01	.2866-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
603	.00000	27 274	2314 0	.2935-03	.3527-03	.3527-03	.9000	.1027-04	.1234-04	.7931-02	.6998-01	524.2
603	.00000	28.017	2315 0	.3096-02	.3721-02	.3721-02	.9000	.1083-03	.1301-03	.8365-01	.9908	524.2
603	87500	27 275	2316 0	.1147-03	.1378-03	.1378-03	.9000	.4011-05	.4819-05	.3102-02	.2367-01	523.4
603	87500	28 017	2317.0	.4493-02	.5398-02	.5398-02	.9000	.1572-03	.1888-03	.1216	.9774	523.3
603	1.6970	28.017	2319.0	.2268-02	.2724-02	.2724-02	.9000	.7833-04	.9527-04	.6150-01	.4698	521.5
603	1 8370	27.275	2318 0	.1522-02	.1828-02	.1828-02	.9000	.5323-04	.6395-04	.4118-01	.3144	523.0

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3119

OH84B 60-0 UPPER BODY FLAP

(R4U238)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = 0000  
BDFLAP = -12.50 SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
581	2.994	7.990	40.05	1047-01	671.7	1327.	96.36	.6937-01	3.100	3845	1943-02	.7754-07

RUN NUMBER	HPEF BTU/R FT <sup>2</sup> SEC	STN NO REF (R) = 0175
581	4357-01	2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/10	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG R
581	00000	27.274	2314.0	3251-03	3903-03	3903-03	9000	.1417-04	.1701-04	.1125-01	.9887-01	532.4
581	00000	28.017	2315.0	2975-02	.3571-02	3571-02	.9000	.1296-03	.1556-03	.1030	1.215	532.2
581	87500	27.275	2316.0	2911-03	3494-03	3494-03	.9000	.1268-04	.1522-04	.1008-01	.7662-01	531.7
581	87500	28.017	2317.0	.5079-02	.6096-02	6096-02	.9000	.2213-03	.2656-03	.1760	1.409	531.4
581	1.6970	28.017	2319.0	.3564-02	.4277-02	4277-02	.9000	.1553-03	.1864-03	.1236	.9399	530.7
581	1.8370	27.275	2318.0	.1604-02	.1925-02	.1925-02	.9000	.6988-04	.8389-04	.5554-01	.4220	531.9

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3120

OH84B 60-0 UPPER BODY FLAP

(R4U239)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.100 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = -5.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
621	4994	7.900	39.93	1380-01	97.55	1235	91.58	1084-01	4736	3706.	.3195-03	.7369-07

RUN NUMBER	HREF BTU/ R FT2SEC	SIN NO REF(R) = 0175
621	1682-01	5733-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/T0	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
621	00000	28.017	2315.0	2453-02	2968-02	2968-12	.9000	.4126-04	4993-04	2934-01	3476	523.6
621	87500	28.017	2317.0	3058-02	3700-02	3700-12	.9000	.5143-04	6223-04	.3658-01	2941	523.4
621	1.6970	28.017	2319.0	8735-03	.1057-02	1057-12	.9000	.1469-04	1778-04	1045-01	7980-01	523.1
621	1.8370	27.275	2318.0	8097-03	9797-03	9797-13	.9000	.1362-04	1648-04	9693-02	.7399-01	522.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3121

OH84B 60-0 UPPER BODY FLAP

(R4U239)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.100    ALPHA = 40.00    BETA = 0000    ELEVON = .0000  
BDFLAP = -5.100    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
615	1.002	7.940	39.97	.1384-01	204.7	1261	92.64	2202-01	9716	3746	.6415-03	.7454-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175										
615	2418-01	4055-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
615	00000	28.017	2315.0	3132-02	3777-02	3777-02	9000	7572-04	.9132-04	5589-01	.6625	522.6
615	87500	28.017	2317.0	4247-02	.5122-02	5122-02	.9000	.1027-03	1238-03	7582-01	.6099	522.3
615	1.6970	28.017	2319.0	1980-02	2387-02	2387-02	9000	4787-04	.5771.04	3540-01	.2705	521.1
615	1.8370	27.275	2318.0	.1111-02	.1340-02	1340-02	.9000	.2686-04	.3239-04	.1983-01	.1514	522.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3122

OH84B 60-0 UPPER BODY FLAP

(R4U239)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = 0000  
 BDFLAP = -5.000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
593	2.00+	7.980	40.00	1389-01	436.0	1303	94.84	.4539-01	2.023	3810.	.1292-02	.7631-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175
593	3509-01	2867-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
593	00000	27.274	2314.0	3099-03	3724-03	.3724-03	.9000	.1087-04	1307-04	8436-02	.7435-01	526.7
593	00000	29.017	2315.0	5133-02	6170-02	6170-02	.9000	.1801-03	2165-03	1396	1.651	527.3
593	87500	27.275	2316.0	2336-03	2806-03	2806-03	.9000	8195-05	9846-05	6367-02	4853-01	525.8
593	87500	28.017	2317.0	7239-02	8697-02	.8697-02	.9000	2540-03	3051-03	1973	1.584	525.9
593	1.6970	28.017	2319.0	4017-02	.4824-02	.4824-02	.9000	1409-03	1693-03	1097	.8370	524.2
593	1.8370	27.275	2318.0	1797-02	2158-02	.2158-02	.9000	.6304-04	7573-04	4900-01	3735	525.4

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OH84B MCDL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3123

OH84B 60-0 UPPER BODY FLAP

(R4U239)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = -5.070    SPDBRK = .0000

\*\*\*TEST CONDIT DNS\*\*\*

RUN NUMBER	R/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
579	2.997	7.990	40.02	1044-01	670.8	1325.	96.21	6927-01	3.096	3842.	.1943-02	.7742-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175
579	4353-01	2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
579	00000	27.274	2314.0	3037-03	3651-03	3651-03	.9000	1322-04	.1589-04	.1041-01	9125-01	537.3
579	00000	28.017	2315.0	5781-02	.6953-02	6953-02	9000	2516-03	3027-03	1977	2.324	539.0
579	87500	27.275	2316.0	7611-03	9151-03	9151-03	9000	.3313-04	3983-04	2608-01	1976	537.5
579	87500	28.017	2317.0	8236-02	9904-02	9904-02	.9000	3585-03	4311-03	2819	2.249	538.3
579	1.6970	28.017	2319.0	.4163-02	5005-02	5005-02	9000	1812-03	2178-03	1427	1.082	536.9
579	1.8370	27.275	2318.0	2049-02	2464-02	2464-02	.9000	8919-04	.1072-03	.7019-01	5318	537.7

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0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3124

0484B 60-0 UPPER BODY FLAP

(R4U240)

UPR BODYFLAP

# PARAMETRIC DATA

MACH = 8.030 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 00.00 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
623	4983	7.900	39.97	.1384-01	99.83	1256	93.14	.1109-01	.4847	3737	.3215-03	.7495-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175										
623	1706-01	5726-01										

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
623	00000	28.017	2315.0	3510-02	4239-02	4239-02	.9000	5989-04	.7234-04	4373-01	.5175	525.6
623	87500	28.017	2317.0	4539-02	.5481-02	.5481-02	.9000	7745-04	9352-04	5661-01	.4548	524.8
623	1.6970	28.017	2319.0	.538-02	.1857-02	1857-02	.9000	2625-04	.3168-04	.1921-01	.1465	523.9
623	1.8370	27.275	2318.0	7948-03	.9596-03	.9596-03	.9000	1356-04	.1637-04	.9921-02	.7568-01	524.2



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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3125

OH84B 60-0 UPPER BODY FLAP

(R4U240)

UPR BODYFLAP

# PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 0000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /F* X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
613	1.004	7.940	39.97	1731-01	204.8	1260	92.56	2203-01	.9721	3745	6423-03	.7449-07
RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175										
613	2418-01	4052-01										

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
613	00000	27.274	2314.0	2956-03	.3567-03	3567-03	9000	7148-05	8624-05	.5259-02	.4642-01	523.9
613	00000	28.017	2315.0	4336-02	5233-02	5233-02	9000	1048-03	1265-03	7704-01	.9122	524.8
613	07500	27.275	2316.0	2689-03	3245-03	3245-03	9000	6502-05	7845-05	4787-02	.3653-01	523.5
613	07500	28.017	2317.0	6401-02	7724-02	7724-02	9000	1548-03	1867-03	1139	.9153	524.0
613	1.6970	28.017	2319.0	2679-02	.3230-02	3230-02	9000	6476-04	7811-04	4776-01	.3647	522.3
613	1.8370	27.275	2318.0	.1446-02	.1745-02	1745-02	.9000	3497-04	.4218-04	.2575-01	1965	523.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3126

OH84B 60-0 UPPER BODY FLAP

(R4U240)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 0000    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
595	2 001	7 980	40 02	1392-01	435 8	1304.	94.91	.4537-01	2 022	3811.	.1290-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
595	3508-01	2869-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
595	00000	27 274	2314 0	3455-03	4154-03	4154-03	.9000	.1213-04	1457-04	.9415-02	.8296-01	527.2
595	00000	28 017	2315 0	6486-02	7797-02	7797-02	.9000	.2275-03	2735-03	.1764	2.084	528.5
595	87500	27 275	2316 0	2969-03	3567-03	.3567-03	9000	1042-04	1252-04	8093-02	6166-01	526.6
595	87500	28 017	2317 0	9206-02	1106-01	.1106-01	9000	.3230-03	3881-03	.2508	2.012	527.3
595	1 6970	28.017	2319.0	.5509-02	6619-02	.6619-02	9000	.1933-03	2322-03	.1503	1 145	526.1
595	1.8370	27 275	2318 0	.2091-02	2513-02	2513-02	.9000	7337-04	8816-04	5700-01	4343	526.7

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3127

OH84B 60-0 UPPER BODY FLAP

(R4U240)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.00 ALPHA = 40.00 BETA = 0.000 ELEVON = .0000  
BOFLAP = 0.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
577	3.019	7.930	40.06	6989-02	670.3	1318.	95.71	6922-01	3.093	3832.	.1952-02	.7701-07

RUN NUMBER	HREF BTU/ P FT2SEC	STN NO REF(R) = 0175
577	4347-01	2335-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
577	00000	27.274	2314.0	4432-03	5329-03	5329-03	9000	1926-04	2316-04	1508-01	.1324	534.8
577	.00000	28.017	2315.0	8103-02	.9751-02	9751-02	9000	.3522-03	4239-03	.2746	3.230	538.1
577	87500	27.275	2316.0	.7402-03	8900-03	8900-03	9000	.3217-04	3869-04	.2518-01	.1911	534.9
577	87500	28.017	2317.0	.1058-01	.1273-01	.1273-01	9000	.4599-03	5533-03	.3591	2.867	536.9
577	1.6970	28.017	2319.0	4647-02	.5587-02	.5587-02	.9000	.2020-03	2429-03	1581	1.200	534.9
577	1.8370	27.275	2318.0	.2571-02	.3092-02	.3092-02	.9000	.1118-03	.1344-03	.8745-01	.6633	535.2

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0484B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3128

0484B 60-0 UPPER BODY FLAP

(R40241)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
625	.5056	7.900	39.96	1729-01	100.1	1246.	92.40	.1112-01	.4859	3723	.3249-03	.7435-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
625	.1706-01	.5691-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YC MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
625	00000	28.017	2315.0	.3956-02	.4784-02	.4784-02	.9000	.6749-04	8162-04	.4857-01	.5747	526.0
625	87500	28.017	2317.0	.6495-02	.7853-02	.7853-02	.9000	1108-03	1340-03	.7981-01	.6410	525.4
625	1.6970	28.017	2319.0	.2011-02	.2431-02	.2431-02	.9000	.3432-04	4148-04	.2476-01	.1888	524.3
625	1.8370	27.275	2318.0	.8076-03	.9763-03	.9763-03	.9000	1378-04	1666-04	.9935-02	.7578-01	524.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3129

OH84B 60-0 UPPER BODY FLAP

(R4U241)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.010 ALPHA = 40.00 BETA = 0000 ELEVON = 0000  
BDFLAP = 5.010 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
611	9967	7.940	39.96	1384-01	204.6	1265	92.93	2201-01	.9711	3752.	6391-03	.7478-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
611	.2418-01	.4064-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R*	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
611	00000	27.274	2314.0	2603-03	3138-03	3138-03	.9000	.6295-05	.7588-05	4671-02	.4126-01	522.6
611	00000	28.017	2315.0	5567-02	6711-02	.6711-02	.9000	.1346-03	.1623-03	9987-01	1.184	522.9
611	87500	27.275	2316.0	1328-03	1600-03	1600-03	.9000	.3211-05	.3870-05	.2384-02	.1821-01	522.2
611	87500	28.017	2317.0	7325-02	8828-02	8828-02	.9000	.1771-03	.2135-03	1316	1.059	522.0
611	1.6970	28.017	2319.0	3343-02	.4028-02	.4028-02	.9000	.8085-04	.9741-04	6016-01	.4598	520.6
611	1.8370	27.275	2318.0	.1424-02	.1716-02	.1716-02	.9000	.3444-04	.4151-04	.2559-01	.1954	521.7

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3130

OH84B 60-0 UPPER BODY FLAP

(R4U241)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 5.010    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
597	2.013	7.990	40.02	.1392-01	434.8	1297	94.40	.4526-01	2.018	3801	.1294-02	.7596-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
597	3501-01	2863-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	OTWDT DEG. R /SEC	TW DEG. R
597	00000	27.274	2314.0	6272-03	7538-03	.7538-03	.9000	.2196-04	2639-04	.1696-01	1497	524.2
597	.00000	28.017	2315.0	8400-02	.1010-01	1010-01	.9000	2941-03	3535-03	2268	2.685	525.4
597	.87500	27.275	2316.0	.5309-03	6379-03	6379-03	.9000	1859-04	2233-04	.1437-01	.1097	523.5
597	.87500	28.017	2317.0	1178-01	.1416-01	1416-01	.9000	4124-03	4956-03	.3186	2.561	524.1
597	1.6970	28.017	2319.0	6834-02	8209-02	8209-02	.9000	2393-03	2874-03	1853	1.415	522.3
597	1.8370	27.275	2318.0	2286-02	2746-02	2746-02	.9000	8003-04	9615-04	.6190-01	.4724	523.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3131

OH84B 60-0 UPPER BODY FLAP

(R4U241)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = 0000    ELEVON = .0000  
BDFLAP = 5.010    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
583	2.999	7.990	40.05	1395-01	671.1	1325	96.21	.6930-01	3.097	3842.	.1944-02	.7742-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF (R) = C175
583	4354-01	2341-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
583	00000	27.274	2314.0	9630-03	1155-02	1155-03	9000	.4192-04	5029-04	.3338-01	.2939	528.5
583	00000	28.017	2315.0	9386-02	1127-01	1127-01	.9000	.4086-03	4904-03	3245	3.832	530.5
583	87500	27.275	2316.0	1178-02	1412-02	1412-02	9000	.5126-04	6149-04	.4083-01	3109	528.2
583	.87500	28.017	2317.0	1317-01	.1580-01	1580-01	.9000	.5732-03	6877-03	.4561	3.656	529.1
583	1.6970	28.017	2319.0	6515-02	.7812-02	.7812-03	.9000	.2836-03	.3401-03	2261	1.722	527.3
583	1.8370	27.275	2318.0	.3178-02	.3812-02	3812-02	.9000	.1383-03	1659-03	1102	.8386	528.3

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OH84B MODEL 60-0 , J THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3132

OH84B 60-0 UPPER BODY FLAP

(R4U242)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 8.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
619	5067	7.900	39.95	.1383-01	99.45	1239	91.88	.1105-01	4829	3712.	.3247-03	.7393-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
619	1699-01	5689-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
619	00000	28.017	2315.0	.5512-02	.6671-02	.6671-C2	.9000	.9366-04	.1134-03	.6680-01	.7906	525.5
619	87500	28.017	2317.0	.7823-02	.9466-02	.9466-C2	.9000	.1329-03	.1608-03	.9485-01	.7619	525.1
619	1.6970	28.017	2319.0	.2399-02	.2902-02	.2902-C2	.9000	.4076-04	.4931-04	.2913-01	.2222	524.0
619	1.8370	27.275	2318.0	.1033-02	.1250-02	.1250-C2	.9000	.1756-04	.2124-04	.1254-01	.9564-01	524.4



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U242)

UPR BODYFLAP

PARAMETRIC DATA

MACH# = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 8.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
617	1.002	7.940	39.97	1731-01	206.2	1267	93.08	.2218-01	9787	3755.	.6431-03	.7490-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175										
617	.2428-01	4052-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
617	.00000	27.274	2314.0	2105-03	.2539-03	2539-03	9000	.5113-05	6165-05	3794-02	.3348-01	524.6
617	.00000	28.017	2315.0	6596-02	.7955-02	.7955-02	9000	.1602-03	1932-03	1188	1.406	525.1
617	.87500	28.017	2317.0	8971-02	1082-01	1082-01	9000	.2179-03	2626-03	1618	1.301	523.9
617	1.6970	28.017	2319.0	3709-02	4470-02	4470-02	9000	9006-04	.1085-03	.6702-01	.5117	522.6
617	1.8370	27.275	2318.0	.1381-02	1664-02	.1664-02	9000	3353-04	4042-04	2492-01	.1901	523.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4UZ42)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 8.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
591	1.998	7.980	40.01	.1391-01	433.9	1306	95.05	.4517-01	2.013	3814.	.1283-02	.7649-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
591	3501-01	2879-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
591	00000	27.274	2314.0	8212-03	9859-03	.9859-03	.9000	2875-04	3452-04	2247-01	.1983	524.2
591	00000	28.017	2315.0	1123-01	.1349-01	.1349-01	.9000	3932-03	.4724-03	3059	3.617	527.6
591	.87500	27.275	2316.0	8897-03	.1068-02	1068-02	.9000	.3115-04	3740-04	2435-01	.1858	524.1
591	.87500	28.017	2317.0	.1383-01	.1661-01	1661-01	.9000	.4843-03	.5817-03	3774	3.029	526.4
591	1.6970	28.017	2319.0	7839-02	.9413-02	9413-02	.9000	.2745-03	3296-03	.2144	1.635	524.7
591	1.8370	27.275	2318.0	2706-02	.3249-02	.3249-02	.9000	9474-04	.1137-03	.7406-01	.5650	524.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U242)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BOFLAP = 8.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
589	3.003	7.990	40.07	1748-01	673.7	1327	96.36	.6957-01	3.109	3845.	.1949-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
589	4363-01	2339-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
589	00000	27.274	2314.0	1072-02	1285-02	1285-12	.9000	.4677-04	.5600-04	.3738-01	.3293	527.4
589	00000	28.017	2315.0	1077-01	1292-01	1292-01	.9000	.4700-03	.5634-03	.3743	4.420	530.2
589	87500	27.275	2316.0	1479-02	1773-02	1773-02	.9000	.6452-04	.7735-04	.5160-01	3931	526.9
589	87500	28.017	2317.0	1574-01	1888-01	1888-01	.9000	.6869-03	.8238-03	.5481	4.395	528.6
589	1.6970	28.017	2319.0	9543-02	1144-01	1144-01	.9000	.4164-03	.4992-03	.3332	2.539	526.5
589	1.8370	27.275	2318.0	3757-02	4504-02	4504-02	.9000	.1639-03	.1965-03	.1311	.9984	527.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R40Z43)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = .0000  
BDFLAP = 15.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
627	5147	7.900	39.95	1383-01	101.4	1242.	92.10	1127-01	.4923	3717	3302-03	.7411-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175										
627	1716-01	5643-01										

\*\*\*TEST DAT.\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
627	.00000	28.017	2315.0	.1080-01	.1307-01	.1307-0	.9000	.1853-03	.2243-03	.1325	1.567	526.7
627	.87500	27.275	2316.0	.1104-03	.1336-03	.1336-03	.9000	.1896-05	.2293-05	.1359-02	1036-01	524.9
627	.87500	28.017	2317.0	.1445-01	.1748-01	.1748-0	.9000	.2479-03	.3000-03	.1774	1.425	526.0
627	1.6970	28.017	2319.0	.4456-02	.5390-02	.5390-0.	.9000	.7649-04	.9251-04	.5484-01	.4182	524.7
627	1.8370	27.275	2318.0	.1429-02	.1729-02	.1729-0.	.9000	.2453-04	.2967-04	.1759-01	.1341	524.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4UZ43)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 15.00    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	-P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
609	1.024	7.940	39.99	1386-01	209.1	1261	92.64	.2249-01	.9925	3746.	.6553-03	.7454-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175										
609	2443-01	4012-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
609	00000	27.274	2314.0	5543-03	6691-03	6691-03	9000	1354-04	1635-04	9957-02	.8781-01	525.6
609	00000	28.017	2315.0	1256-01	1517-01	1517-0	9000	.3070-03	3707-03	2252	2.664	526.9
609	.87500	27.275	2316.0	5229-03	6311-03	6311-03	9000	.1278-04	1542-04	9395-02	.7162-01	525.3
609	.87500	28.017	2317.0	1742-01	2103-01	2103-01	.9000	.4257-03	5139-03	3127	2.511	526.0
609	1.6970	28.017	2319.0	7675-02	9262-02	.9262-02	.9000	.1875-03	2263-03	.1380	1.053	524.8
609	1.8370	27.275	2318.0	2155-02	.2601-02	.2601-02	.9000	.5266-04	6355-04	3873-01	.2953	525.1

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OH84B MODEL 60-O IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-O UPPER BODY FLAP

(R4U243)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 0000  
 BDFLAP = 15.00 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
599	1.990	7.990	40.04	1744-01	435.0	1307.	95.13	4528-01	2.019	3815.	.1285-02	7655-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
599	3506-01	2876-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
599	00000	27.274	2314.0	1043-02	.1252-02	.1252-02	.9000	.3656-04	.4391-04	.2855-01	.2517	525.8
599	00000	28.017	2315.0	.1145-01	.1376-01	.1376-01	.9000	.4015-03	.4825-03	.3126	3.696	528.1
599	87500	27.275	2316.0	.2348-02	.2820-02	.2820-02	.9000	.8234-04	.9890-04	.6428-01	.4899	526.0
599	87500	28.017	2317.0	.1866-01	.2241-01	.2241-01	.9000	.6542-03	.7858-03	.5103	4.096	526.7
599	1.6970	28.017	2319.0	.1053-01	.1264-01	.1264-01	.9000	.3692-03	.4432-03	.2887	2.202	524.6
599	1.8370	27.275	2318.0	.3909-02	.4694-02	.4694-02	.9000	.1371-03	.1646-03	.1071	.8161	525.6

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3139

OH84B 60-0 UPPER BODY FLAP

(R4U243)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.030 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BOFLAP = 15.30 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
585	2.992	7.990	40.06	1397-01	669.7	1328	96.43	.6916-01	3.091	3846.	1936-02	.7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
585	4351-01	2347-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
585	00000	27.274	2314.0	2906-02	.3486-02	3486-C2	9000	.1264-03	1517-03	1008	8871	530.1
585	.00000	28.017	2315.0	.1233-01	1480-01	.1480-C1	9000	5364-03	6438-03	4267	5.034	532.1
585	87500	27.275	2316.0	5402-02	6482-02	6482-C2	.9000	2350-03	2820-03	.1873	1.424	530.8
585	87500	28.017	2317.0	.1984-01	2381-01	2381-C1	.9000	8633-03	1036-02	.6876	5.506	531.2
585	1.6970	28.017	2319.0	.8248-02	9892-02	9892-C2	.9000	3589-03	4304-03	.2868	2.183	528.5
585	1.8370	27.275	2318.0	.4173-02	5006-02	5006-C2	9000	1816-03	2178-03	.1450	1.103	529.3

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R UZ44)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 0000  
 BDFLAP = 23.50 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
629	5153	7.900	39 96	.1729-01	101.8	1244.	92.25	.1131-01	.4940	3720	3309-03	.7423-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
629	.1720-01	5638-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
629	.00000	27.274	231 0	2561-03	3098-03	.3098-13	.9000	.4405-05	5328-05	3152-02	2788-01	525.8
629	.00000	28 017	231 0	1542-01	.1866-01	.1866-11	.9000	.2652-03	3210-03	1900	2 247	527.3
629	87500	27 275	231 0	4391-03	5311-03	.5311-03	.9000	.7552-05	9135-05	.5421-02	.4132-01	525.9
629	87500	28 017	231 0	2128-01	2574-01	.2574-11	.9000	.3660-03	4428-03	2625	2 107	526.4
629	1 6970	28 017	231 0	7519-02	.9094-02	.9094-02	.9000	.1293-03	.1564-03	.9290-01	7083	525 3
629	1 8370	27 275	231 0	2218-02	.2683-02	.2683-02	.9000	.3815-04	.4614-04	2739-01	2088	525 6



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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U244)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.00    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 23.50    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
607	9872	7.940	39.96	1383-01	205.3	1276	93.74	.2208-01	.9744	3769	.6358-03	.7543-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
607	2425-01	4078-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
607	00000	27.274	2314.0	1748-02	2105-02	.2105-02	.9000	.4241-04	.5106-04	3193-01	.2820	522.8
607	00000	28.017	2315.0	1556-01	.1874-01	.1874-01	.9000	.3774-03	.4547-03	2835	3.357	524.6
607	87500	27.275	2316.0	4434-02	5340-02	5340-02	.9000	1076-03	.1296-03	.8085-01	.6168	524.1
607	97500	28.017	2317.0	2364-01	2847-01	.2847-01	.9000	5735-03	6907-03	4311	3.466	523.9
607	1.6970	28.017	2319.0	8990-02	1082-01	.1082-01	.9000	.2181-03	.2625-03	.1645	1.257	521.4
607	1.8370	27.275	2318.0	3778-02	.4548-02	.4548-02	.9000	9165-04	1103-03	6905-01	.5273	522.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4UZ44)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.00 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 23.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
601	1.999	7.980	39.99	1388-01	435.3	1304	94.91	.4531-01	2.020	3811.	.1289-02	.7637-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
601	3506-01	2871-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
601	00000	27.274	2314.0	.1955-02	.2350-02	.2350-112	9000	.6855-04	.8238-04	5324-01	.4691	527.1
601	00000	28.017	2315.0	.1559-01	.1875-01	.1875-11	9000	.5467-03	.6575-03	4228	4.992	530.3
601	87500	27.275	2316.0	.5520-02	.6636-02	.6636-12	9000	.1935-03	.2327-03	1500	1.142	528.5
601	87500	28.017	2317.0	.2604-01	.3132-01	.3132-11	9000	.9131-03	.1098-02	.7071	5.668	529.3
601	1.6970	28.017	2319.0	.1330-01	.1598-01	.1598-11	9000	.4663-03	.5603-03	.3825	2.762	526.3
601	1.8370	27.275	2318.0	.5337-02	.6413-02	.6413-12	9000	.1871-03	.2248-03	.1453	1.107	526.9

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OH84B MODEL -60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

PAGE 3143

OH84B 60-0 UPPER BODY FLAP

(R4U244)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 23.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
587	3.006	7.990	40.06	1398-01	671.3	1323	96.07	6933-01	3.098	3839.	.1948-02	.7731-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (P) = 0175
587	4353-01	2339-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
587	00000	27.274	2314.0	3898-02	4681-02	4681-02	9000	1697-03	2038-03	.1342	1.180	531.7
587	00000	28.017	2315.0	1431-01	1719-01	1719-0	9000	6230-03	7484-03	.4919	5.799	533.1
587	87500	27.275	2316.0	1285-01	1545-01	1545-0	9000	5595-03	6724-03	.4406	3.343	535.1
587	87500	28.017	2317.0	2450-01	2943-01	2943-0	9000	1066-02	1281-02	.8424	6.741	532.7
587	1.6970	28.017	2319.0	1286-01	1543-01	1543-0	.9000	5597-03	6717-03	.4439	3.377	529.5
587	1.8370	27.275	2318.0	4916-02	5901-02	5901-02	.9000	2140-03	2569-03	1695	1.289	530.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3144

OH84B 60-0 UPPER BODY FLAP

(R4U245)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.0(0) ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = -5.0(0) SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
681	5058	7.900	39.93	-1.1034-01	101.2	1255	93.06	.1125-01	.4913	3736.	.3262-03	.7489-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
681	1718-01	5684-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
681	.00000	28.017	2315.0	3658-02	.4419-02	.4419-02	.9000	.6284-04	7591-04	.4580-01	.5420	525.8
681	.87500	28.017	2317.0	3966-02	.4789-02	.4789-02	.9000	.6813-04	8226-04	.4976-01	.3999	524.3
681	1.6370	28.017	2319.0	1587-02	.1916-02	.1916-02	.9000	.2726-04	.3290-04	.1993-01	.1521	523.4
681	1.8370	27.275	2318.0	.7014-03	.8469-03	.8469-03	.9000	.1205-04	.1455-04	.8798-02	.6711-01	524.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3145

OH84B 60-0 UPPER BODY FLAP

(R4U245)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = -5.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
667	1.005	7.940	39.96	-6.922-02	205.3	1261	92.64	.2208-01	.9744	3746	.6433-03	.7454-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
667	2421-01	.4049-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWOT DEG. R /SEC	TW DEG R
667	00000	27.274	2314.0	2626-03	.3169-03	.3169-03	9000	6358-05	.7673-05	.4677-02	.4126-01	525.1
667	00000	28.017	2315.0	2952-02	.3563-02	.3563-02	.9000	7146-04	.8626-04	.5253-01	.6218	525.6
667	87500	28.017	2317.0	4347-02	.5245-02	.5245-02	9000	1052-03	.1270-03	.7746-01	.6224	524.7
667	1.6970	28.017	2319.0	2059-02	.2484-02	.2484-02	.9000	4986-04	.6014-04	.3676-01	.2806	523.4
667	1.8370	27.275	2318.0	9392-03	.1133-02	.1133-02	.9000	2274-04	.2744-04	.1674-01	.1277	524.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3146

OH84B 60-0 UPPER BODY FLAP

(R4U245)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = 0000    ELEVON = 5.000  
 BDFLAP = -5.010    SPDBRM = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
687	1.992	7.980	40.00	-6947-02	434.9	1306.	95.05	.4527-01	2.018	3814	.1285-02	.7649-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
687	3505-01	2875-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
687	.00000	27.274	2314.0	.1770-03	2126-03	.2126-03	.9000	.6204-05	.7452-05	.4834-02	.4261-01	526.5
687	.00000	28.017	2315.0	.4370-02	5252-02	.5252-02	.9000	.1532-03	.1841-03	.1191	.1408	528.1
687	.87500	27.275	2316.0	.4879-04	5861-04	.5861-04	.9000	.1710-05	.2054-05	.1333-02	.1015-01	526.5
687	.87500	28.017	2317.0	.5957-02	7157-02	.7157-02	.9000	.2088-03	.2509-03	.1625	.1304	527.2
687	1.6970	28.017	2319.0	.3005-02	3609-02	.3609-02	.9000	.1053-03	.1265-03	.8210-01	.6256	526.2
687	1.8370	27.275	2318.0	.1112-02	.1337-02	.1337-02	.9000	.3900-04	.4685-04	.3037-01	.2314	526.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4UZ45)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = 5.000  
 BODYFLAP = -5.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
701	2.998	7.990	40.05	-6.978-02	669.5	1323.	96.07	.6914-01	3.090	3839.	.1942-02	.7731-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
701	.4347-01	2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
701	00000	27.274	2314.0	2568-03	.3087-03	3087-C3	.9000	1116-04	1342-04	.8789-02	.7713-01	535.4
701	00000	28.017	2315.0	5674-02	6826-02	6826-C2	.9000	2467-03	2967-03	1934	2.274	538.6
701	87500	27.275	2316.0	4739-03	5696-03	5696-C3	.9000	.2060-04	2476-04	.1621-01	.1230	535.6
701	87500	28.017	2317.0	.7687-02	9245-02	9245-C2	.9000	3342-03	4019-03	2624	2.094	537.6
701	1.6970	28.017	2319.0	4526-02	5442-02	5442-C2	.9000	1968-03	2366-03	.1546	1.172	537.0
701	1.8370	27.275	2318.0	.1657-02	.1992-02	.1992-C2	.9000	7203-04	8660-04	5666-01	.4296	536.2

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3148

OH84B 60-0 UPPER BODY FLAP

(R4U246)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = .0000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
679	5025	7.900	39.97	-6923-02	100.5	1255	93.06	.1117-01	4881	3736	3241-03	7489-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
679	.1712-01	.5703-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
679	00000	28.017	2315.0	4077-02	4929-02	.4929-02	.9000	.6981-04	.8439-04	.5072-01	5995	528.2
679	87500	28.017	2317.0	.4641-02	.5607-02	.5607-02	.9000	.7946-04	.9601-04	5784-01	.4643	526.7
679	1.6970	28.017	2319.0	.1537-02	.1857-02	.1857-02	.9000	.2632-04	.3179-04	.1919-01	1463	525.6
679	1.8370	27.275	2318.0	.4522-03	.5463-03	.5463-03	.9000	.7742-03	.9353-05	5641-02	.4299-01	526.1



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3149

OH84B 60-0 UPPER BODY FLAP

(R4U246)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = 5.000  
BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
665	1.003	7.940	39.97	-1732-01	205.8	1265.	92.93	.2213-01	9768	3752.	.6429-03	.7478-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175										
665	2425-01	.4052-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/P FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
665	00000	27.274	2314.0	3568-03	.4312-03	.4312-03	.9000	8653-05	.1046-04	.6343-02	.5577-01	531.6
665	00000	28.017	2315.0	4083-02	.4937-02	.4937-02	.9000	.9902-04	.1197-03	.7238-01	.8532	533.7
665	87500	27.275	2316.0	.469-03	.1775-03	.1775-03	.9000	.3562-05	.4305-05	.2610-02	.1983-01	532.0
665	87500	28.017	2317.0	6071-02	.7340-02	.7340-02	.9000	.1472-03	.1780-03	.1077	.8612	533.5
665	1.6970	28.017	2319.0	2371-02	.2865-02	.2865-02	.9000	.5750-04	.6949-04	.4213-01	.3201	532.0
665	1.8370	27.275	2318.0	.1081-02	.1307-02	.1307-02	.9000	.2622-04	.3170-04	.1921-01	.1460	532.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3150

OH84B 60-0 UPPER BODY FLAP

(R40Z46)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = 0000    ELEVON = 5.000  
 BDFLAP = .0000    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
689	1 996	7.980	39 99	- .1041-01	434.3	1303.	94 84	4521-01	2 015	3810.	.1287-02	.7631-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
689	3502-01	2873-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
689	00000	27 274	2314 0	2497-03	3002-03	.3002-03	9000	8743-05	1051-04	.6765-02	5956-01	528 9
689	00000	28 017	2315 0	6065-02	7299-02	.7299-02	9000	.2124-03	2556-03	.1636	1 930	532.3
689	87500	27 275	2316.0	3122-03	.3754-03	.3754-03	.9000	1093-04	1315-04	8459-02	.6438-01	528.9
689	87500	28.017	2317 0	.8249-02	.9925-02	.9925-02	.9000	.2888-03	.3475-03	.2228	1.784	531.3
689	1 6970	28 017	2319 0	.3834-02	.4611-02	.4611-02	.9000	.1342-03	.1615-03	.1037	.7888	530.1
689	1 8370	27 275	2318.0	.1460-02	.1755-02	.1755-02	.9000	.5111-04	.6146-04	.13952-01	.3007	529.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U246)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
699	2 999	7 990	40 05	- 6984-02	670 4	1324.	96 14	.6923-01	3.094	3841.	.1944-02	.7736-07

RUN NUMBER	HREF BTU/ R F*2SEC	STN NO REF(R) = 0175
699	4351-01	2341-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
699	00000	27 274	2314 0	3814-03	4583-03	4583-03	9000	.1659-04	.1994-04	.1308-01	.1148	535 3
699	00000	28 017	2315 0	7065-02	.8498-02	8498-02	9000	.3074-03	.3697-03	2411	2 834	539 1
699	87500	27.275	2316 0	.6830-03	8207-03	8207-03	9000	.2971-04	.3571-04	.2343-01	.1778	535 1
699	87500	28 017	2317 0	9971-02	.1199-01	.1199-01	9000	.4338-03	.5217-03	.3409	2.721	537 9
699	1 6970	28 017	2319.0	4826-02	5801-02	5801-02	9000	.2099-03	.2524-03	.1653	1.254	536.2
699	1 8370	27 275	2318 0	2064-02	2481-02	2481-02	9000	.8982-04	.1080-03	.7079-01	5369	535.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

PAGE 3152

OH84B 60-0 UPPER BODY FLAP

(R4U247)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON # 5.000  
 BDFLAP = 8.000    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
683	5030	7.900	39.93	-1.6896-02	100.5	1254.	92.99	1117-01	.4880	3735.	3242-03	7483-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
683	1712-01	5700-01

## \*\*\*TEST DAT/ \*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
683	00000	28.017	2315.0	6330-02	.7651-02	.7651-02	.9000	1084-03	1310-03	7865-01	9298	527.8
683	87500	28.017	2317.0	7821-02	9451-02	9451-02	.9000	1339-03	1618-03	9735-01	7815	526.5
683	1.6970	28.017	2319.0	2291-02	2767-02	2767-02	.9000	3921-04	4736-04	2857-01	2179	525.0
683	1.8370	27.275	2318.0	.7544-03	9114-03	9114-03	.9000	1291-04	1560-04	9402-02	7167-01	525.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3153

OH84B 60-0 UPPER BODY FLAP

(R4U247)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = 8.010    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
669	1.010	7.940	39.95	-1037-01	205.9	1259	92.49	.2215-01	9773	3743.	.6462-03	.7443-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
669	2424-01	4040-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG R /SEC	TW DEG R
669	00000	27.274	2314.0	3774-03	4557-03	4557-03	.9000	9148-05	1105-04	6697-02	.5903-01	526.6
669	00000	28.017	2315.0	6890-02	.8322-02	8322-03	.9000	1670-03	.2017-03	.1222	1.445	527.0
669	87500	27.275	2316.0	2646-03	3195-03	3195-03	.9000	6415-05	7746-05	.4699-02	.3582-01	526.1
669	87500	28.017	2317.0	.8815-02	1064-01	1064-03	.9000	2137-03	.2580-03	.1566	1.258	525.8
669	1.6970	28.017	2319.0	.4028-02	4862-02	4862-03	.9000	.9764-04	.1178-03	.7167-01	.5466	524.6
669	1.8370	27.275	2318.0	.1452-02	.1753-02	.1753-03	.9000	3520-04	.4250-04	.2579-01	.1966	525.9

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CH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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CH84B 60-0 UPPER BODY FLAP

(R4U247)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.033    ALPHA = 40.00    BETA = 0000    ELEVON = 5.000  
BDFLAP = 8.033    SPDBRK = 0000

\*\*\*TEST CONDIT CNS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
685	2.023	7.980	39.98	-6930-02	434.5	1292.	94.03	4523-01	2.016	3794.	.1298-02	.7567-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
685	3497-01	.2858-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TH DEG. R
685	.00000	27.274	2314.0	4765-03	5734-03	5734-03	.9000	.1667-04	.2005-04	1275-01	.1123	526.9
685	.00000	28.017	2315.0	7691-02	.9260-02	9260-02	.9000	2690-03	3239-03	2049	2.420	529.7
685	.87500	27.275	2316.0	6903-03	8307-03	.8307-03	.9000	.2414-04	2905-04	1846-01	.1406	527.2
685	.87500	28.017	2317.0	1098-01	1322-01	1322-01	.9000	.3841-03	4624-03	2929	2.348	529.1
685	1.6970	28.017	2319.0	.6105-02	7348-02	7348-02	.9000	2135-03	2570-03	1629	1.240	528.6
685	1.8370	27.275	2318.0	2141-02	.2577-02	2577-02	.9000	7489-04	9012-04	5722-01	.4358	527.5

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U247)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = 8.010    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
703	2.990	7.990	40.01	-6955-02	668.4	1324.	96.14	.6903-01	3.085	3841.	.1938-02	.7736-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) =.0175
703	4344-01	2345-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
703	00000	27.274	2314.0	6580-03	7902-03	7902-03	9000	2858-04	3433-04	.2261-01	.1987	532.7
703	00000	28.017	2315.0	1040-01	1250-01	1250-01	9000	4518-03	5430-03	.3561	4.193	535.6
703	87500	27.275	2316.0	.1235-02	1483-02	.1483-02	9000	5366-04	6444-04	.4245-01	3.225	532.6
703	87500	28.017	2317.0	.1366-01	1640-01	1640-01	9000	5932-03	7126-03	.4685	3.747	533.9
703	1.6970	28.017	2319.0	.6694-02	.8038-02	8038-02	.9000	2908-03	.3492-03	.2301	1.748	532.3
703	1.8370	27.275	2318.0	.2935-02	3525-02	3525-02	.9000	1275-03	1532-03	1009	7660	532.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3156

OH84B 60-0 UPPER BODY FLAP

(R4UZ48)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = 15.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
675	.5021	7.900	39.94	-.6904-02	100 2	1253.	92.91	.1114-01	.4866	3733.	.3235-03	.7477-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
675	.1709-01	5706-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
675	.00000	28 017	2315.0	1125-01	.1361-01	.1361-01	.9000	1922-03	.2325-03	.1391	1.643	529.3
675	.87500	28 017	2317 0	1407-01	.1702-01	.1702-01	9000	.2405-03	.2908-03	.1742	1.397	528.4
675	1.6970	28.017	2319.0	3126-02	.3778-02	.3778-02	9000	5342-04	.6456-04	.3876-01	.2852	527.1
675	1.8370	27 275	2318.0	.9636-03	.1165-02	1165-02	.9000	.1647-04	.1990-04	1195-01	.9108-01	526 8



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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U248)

UPR BODYFLAP

-PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 15.00 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
673	1.003	7.940	39.97	-.6929-02	205.6	1264	92.86	.2211-01	9759	3751.	.6427-03	.7472-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
673	2424-01	4052-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT/ BTU/ FT <sup>2</sup> SEC	DTWDT DEG R /SEC	TW DEG R
673	00000	27.274	2314.0	4895-03	5905-03	.5905-03	9000	1186-04	.1431-04	.8760-02	7726-01	525.3
673	00000	28.017	2315.0	1206-01	1456-01	.1456-01	.9000	2924-03	3529-03	.2155	2.550	526.6
673	87500	27.275	2316.0	5633-03	6796-03	.6796-03	9000	.1365-04	1647-04	1008-01	7689-01	525.1
673	87500	28.017	2317.0	1644-01	1984-01	.1984-01	9000	3985-03	4808-03	.2941	2.362	525.6
673	1.6970	28.017	2319.0	7230-02	8721-02	.8721-02	.9000	.1753-03	2114-03	.1296	.9883	524.4
673	1.8370	27.275	2318.0	.2143-02	.2586-02	.2586-02	.9000	.5195-04	6267-04	.3838-01	.2927	524.9

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U248)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.00    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
 BDFLAP = 15.0    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
691	1.993	7.980	39.99	-.6942-02	434.6	1305	94.98	.4524-01	2.017	3813.	.1286-02	.7643-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) =.0175
691	3504-01	.2875-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
691	00000	27.274	2314.0	.8289-03	.9976-03	.9976-03	9000	.2904-04	.3495-04	2241-01	1969	533.1
691	00000	28.017	2315.0	.1126-01	.1356-01	.1356-01	9000	.3945-03	.4753-03	.3029	3.564	536.9
691	87500	27.275	2316.0	.1638-02	.1972-02	.1972-02	.9000	.5739-04	.6908-04	.4425-01	.3359	533.7
691	87500	28.017	2317.0	.1675-01	.2017-01	.2017-01	.9000	.5868-03	.7068-03	.4509	3.602	536.3
691	1.6970	28.017	2319.0	.6529-02	.7860-02	.7860-02	.9000	.2287-03	.2754-03	.1762	1.338	534.3
691	1.8370	27.275	2318.0	.3190-02	.3840-02	.3840-02	.9000	.1118-03	.1345-03	.18614-01	.6538	534.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U248)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BOFLAP = 15.00    SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
697	2.999	7.990	40.00	-6947-02	668.9	1322	96.00	6908-01	3.087	3838.	.1942-02	.7725-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(P) = 0175
697	4345-01	2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
697	00000	27.274	2314.0	9699-03	1165-02	1165-02	9000	.4214-04	.5060-04	3331-01	.2929	531.3
697	00000	28.017	2315.0	9059-02	1089-01	1089-01	.9000	3936-03	4730-03	3099	3.652	534.2
697	87500	27.275	2316.0	2247-02	2699-02	2699-02	9000	9763-04	1173-03	7703-01	5851	532.7
697	87500	28.017	2317.0	1602-01	1925-01	1925-01	.9000	6961-03	8365-03	.5484	4.386	533.9
697	1.6970	28.017	2319.0	8285-02	9952-02	9952-02	9000	3600-03	4324-03	2840	2.157	532.7
697	1.8370	27.275	2318.0	3711-02	4458-02	4458-02	.9000	.1612-03	1937-03	1272	.9664	532.6

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OH84B MODEL 60-0 IN THE AEDC VKF1 HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U249)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BODYFLAP = 23.50 SPDBPK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
677	.5060	7.900	39.96	-6920-02	101.1	1254.	92.99	1124-01	4909	3735.	.3262-03	.7483-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175
677	1717-01	5684-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=1.0 TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	.DTWDT DEG. R /SEC	TW DEG. R
677	.00000	28.017	2315.0	1372-01	1658-01	1658-0	.9000	.2355-03	.2847-03	1709	2.021	527.9
677	.87500	28.017	2317.0	2083-01	.2517-01	2517-0	.9000	.3576-03	.4322-03	2597	2.084	527.3
677	1.6970	28.017	2319.0	5999-02	7247-02	7247-02	.9000	.1030-03	.1244-03	.7498-01	.5715	525.7
677	1.6370	27.275	2316.0	.2081-02	.2514-02	2514-02	.9000	.3573-04	.4317-04	.2599-01	.1980	526.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U249)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = 23.00 SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
671	1.007	7.940	39.96	-1038-01	204.7	1257.	92.34	.2202-01	.9716	3740.	.6435-03	.7431-07

RUN NUMBER	HREF BTU/R FT2SEC	STIN NO REF(R) = 0175
671	.2416-01	4047-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
671	00000	27.274	2314.0	8074-03	9757-03	9757-03	.9000	.1951-04	.2357-04	.1421-01	.1252	528.2
671	00000	28.017	2315.0	1473-01	1780-01	1780-01	.9000	.3558-03	.4302-03	.2586	3.054	529.8
671	87500	27.275	2316.0	.8960-03	.1083-02	1083-03	.9000	.2165-04	.2616-04	.1577-01	.1201	528.1
671	87500	28.017	2317.0	.2122-01	.2565-01	.2565-01	.9000	.5127-03	.6197-03	.3732	2.992	528.8
671	1.6970	28.017	2319.0	.8445-02	.1020-01	.1020-01	.9000	.2040-03	.2465-03	.1488	1.133	527.5
671	1.8370	27.275	2318.0	.3163-02	.3822-02	.3822-02	.9000	.1764-04	.1923-04	.1570-01	.1421	528.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4UZ49)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
 BDFLAP = 23.13    SPDBRK = .0000

## \*\*\*TEST CONDIT ONG\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
693	2.000	7.980	40.00	-1.1042-01	434.5	1302.	94.76	.4523-01	2.016	3808.	.1288-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
693	3502-01	2871-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
693	.00000	27.274	2314.0	1079-02	.1297-02	1297-02	.9000	.3779-04	.4543-04	.2925-01	.2576	527.7
693	.00000	28.017	2315.0	1339-01	.1611-01	1611-01	.9000	.4690-03	.5642-03	.3616	4.268	530.7
693	.87500	27.275	2316.0	2494-02	.2998-02	2998-02	.9000	.8734-04	.1050-03	.6756-01	5144	528.1
693	.87500	28.017	2317.0	2020-01	.2430-01	2430-01	.9000	.7074-03	.8509-03	.5462	4.378	529.6
693	1.6970	28.017	2319.0	9247-02	.1112-01	1112-01	.9000	.3238-03	.3993-03	.2506	1.908	527.8
693	1.8370	27.275	2318.0	4311-02	.5183-02	5183-02	.9000	.1510-03	.1815-03	.1168	.8896	527.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U249)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = 23.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
695	3.030	7.990	40.02	-1.6963-02	669.0	1313	95.34	.6909-01	3.087	3825	.1956-02	.7672-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
695	4340-01	2332-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
695	.00000	27.274	2314.0	.4108-02	.4937-02	.4937-02	.9000	.1783-03	.2142-03	1394	1.226	530.8
695	.00000	28.017	2315.0	.1367-01	.1644-01	.1644-01	.9000	.5931-03	.7134-03	4616	5.440	534.3
695	.87500	27.275	2316.0	.3137-01	.3782-01	.3782-01	.9000	.1362-02	.1641-02	1.048	7.922	542.8
695	.87500	28.017	2317.0	.2299.01	.2765-01	.2765-01	.9000	.9975-03	.1200-02	7766	6.210	534.1
695	1.6970	28.017	2319.0	.1181-01	.1420-01	.1420-01	.9000	.5126-03	.6161-03	4007	3.046	531.1
695	1.8370	27.275	2318.0	.4696-02	.5642-02	.5642-02	.9000	.2038-03	.2449-03	.1595	1.213	530.1

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 UPPER BODY FLAP

(R4U250)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BCFLAP = .0000    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
767	.5029	7.900	39.98	-.3466-02	100.1	1251.	92.77	1113-01	4863	3730.	.3238-03	.7465-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
767	.1708-01	.5703-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
767	.00000	28.017	2315.0	3072-02	3719-02	.3719-02	.000	.5246-04	.6352-04	.3768-01	.4445	532.4
767	.87500	28.017	2317.0	3716-02	.4499-02	.4499-02	.000	.6348-04	.7683-04	.4566-01	.3657	531.3
767	1.6970	28.017	2319.0	.1532-02	.1853-02	.1853-02	.000	.2616-04	.3165-04	.1885-01	.1434	530.1
767	1.8370	27.275	2318.0	.6093-03	.7373-03	.7373-03	.000	.1041-04	.1259-04	.7502-02	.5706-01	529.8



DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3165

0484B 60-0 UPPER BODY FLAP

(R4U250)

UFR BODYFLAP

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*

RUN NUMBER	PN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	O PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
757	1.043	7.940	39.99	-4654-06	214.1	1265.	9.93	2302-01	1.016	3752	.6687-03	.7478-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
757	2474-01	.3973-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	YO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
757	00000	27.274	2314.0	1911-03	2308-03	.2308-03	.0000	.4727-05	.5710-05	.3474-02	.3057-01	529.8
757	00000	28.017	2315.0	3961-02	4787-02	.4787-02	.0000	.9797-04	1184-03	.7180-01	.8471	531.8
757	87500	28.017	2317.0	5263-02	6360-02	.6360-02	.0000	.1302-03	1573-03	.9550-01	7648	531.1
757	1.6970	28.017	2319.0	.2332-02	2816-02	.2816-02	.0000	.5768-04	6967-04	.4238-01	3224	529.8
757	1.8370	27.275	2318.0	9842-03	.1189-02	.1189-02	.0000	.2435-04	.2941-04	.1789-01	1361	529.9

DATE 23 FEB 80

O484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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O484B 60-0 UPPER BODY FLAP

(R4U250)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = 0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
755	1.976	7.980	40.06	-4684-06	429.7	1307.	93.13	4474-01	1.994	3815.	.1269-02	.7655-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) -0.0175
755	3485-01	2894-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YD MS	AO MS	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
755	00000	27.274	2314.0	3214-03	.3866-03	.3866-03	3000	.1120-04	.1348-04	8679-02	7629-01	532.0
755	00000	28.017	2315.0	5377-02	.6472-02	.6472-02	.9000	.1874-03	.2256-03	1447	1.706	534.3
755	87500	27.275	2316.0	2973-03	.3576-03	.3576-03	3000	.1036-04	.1246-04	8027-02	6099-01	531.9
755	87500	28.017	2317.0	8383-02	.1009-01	.1009-01	.3000	.2922-03	.3516-03	2258	1.806	533.7
755	1.6970	28.017	2319.0	3887-02	.4676-02	.4676-02	.3000	.1355-03	.1630-03	.1049	.7967	532.4
755	1.8370	27.275	2318.0	1344-02	.1617-02	.1617-02	9000	.4685-04	.5636-04	3628-01	.2757	532.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3167

OH84B 60-0 UPPER BODY FLAP

(R4U250)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 3.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
BDFLAP = .0000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
745	3.041	7.990	40.06	-34.95-02	670.5	1312.	55.27	.6924-01	3.094	3823.	.1962-02	.7666-07

RUN NUMBER	4REF BTU/R FT2SEC	STW NO REF(R) = 0175
745	4344-01	.2328-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
745	00000	27.274	2314.0	.3521-03	.4233-03	.4233-03	9000	.1529-04	.1839-04	.1192-01	.1047	532.4
745	.00000	28.017	2315.0	.6772-02	.8149-02	.8149-02	9000	.2942-03	.3540-03	.2283	2.689	535.6
745	.87500	27.275	2316.0	.6641-03	.7985-03	.7985-03	9000	.2895-04	.3469-04	.2248-01	.1708	532.5
745	.87500	28.017	2317.0	.9707-02	.1168-01	.1168-01	9000	.4217-03	.5073-03	.3277	2.620	534.6
745	1.6970	28.017	2319.0	.4355-02	.5238-02	.5238-02	9000	.1892-03	.2275-03	.1473	1.118	533.2
745	1.8370	27.275	2318.0	.1823-02	.2193-02	.2193-02	9000	.7922-04	.9526-04	.6170-01	.4086	532.8

DATE 23 FEB 80

OH848 MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3168

OH848 60-0 UPPER BODY FLAP

(R4U251)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 15.00    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	'TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
765	.5049	7.900	39.98	- 3466-02	100.4	1250.	12 69	.1116-01	.4875	3729.	.3249-03	.7459-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175										
765	.1710-01	.5692-01										

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF TAW/TO R <sub>f</sub>	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
765	.00000	28.017	2315.0	.9558-02	.1157-01	.1157-01	9000	.1634-03	.1979-03	.1172	1.303	532.4
765	.87500	27.275	2316.0	.1345-03	.1628-03	.1628-03	9000	.2300-05	.2793-05	.1655-02	.1258-01	530.2
765	.87500	28.017	2317.0	.1231-01	.1490-01	.1490-01	9000	.2105-03	.2548-03	.1512	1.211	531.3
765	1.6970	28.017	2319.0	.4529-02	.5482-02	.5482-02	9000	.7745-04	.9373-04	.5571-01	.4236	530.4
765	1.8370	27.275	2318.0	.1824-02	.2208-02	.2208-02	9000	.3119-04	.3775-04	.2243-01	.1706	530.5

DATE 23 FEB 80

CH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3169

CH84B 60-0 UPPER BODY FLAP

(R4U251)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
BDFLAP = 15.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
759	1.001	7.940	39.99	-4655-06	206.7	1270.	33.30	.2224-01	.9813	3760.	.6433-03	.7508-07
RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175										
759	2433-01	.4053-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWOT DEG R /SEC	TW DEG R
759	00000	27.274	2314.0	.4864-03	.5871-03	.5871-03	9000	.1183-04	.1428-04	.8762-02	.7713-01	529.1
759	00000	28.017	2315.0	.1129-01	.1364-01	.1364-01	9000	.2747-03	.3318-03	.2027	2.391	531.9
759	87500	27.275	2316.0	.4560-03	.5504-03	.5504-03	.9000	.1109-04	.1339-04	.8213-02	.6249-01	529.4
759	87500	28.017	2317.0	.1519-01	.1834-01	.1834-01	9000	.3695-03	.4462-03	.2729	2.185	531.2
759	1.6970	28.017	2319.0	.6450-02	.7788-02	.7788-02	9000	.1569-03	.1895-03	.1160	.8819	530.5
759	1.8370	27.275	2318.0	.2157-02	.2604-02	.2604-02	.9000	.5247-04	.6334-04	.3880-01	.2951	530.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3170

OH84B 60-0 UPPER BODY FLAP

(R4U251)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = 15.00 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
753	2.020	7.980	40.04	-4678-06	434.4	1293	94.11	.4523-01	2.016	3795	.1297-02	.7573-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
753	.3498-01	.2859-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
753	00000	27.274	2314.0	.2229-03	.2686-03	.2686-03	9000	.7797-05	.9395-05	.5928-02	.5209-01	532.5
753	00000	28.017	2315.0	.6589-02	.7945-02	.7945-02	9000	.2305-03	.2779-03	1746	2.056	535.1
753	.87500	27.275	2316.3	.1284-02	.1547-02	.1547-02	9000	.4489-04	.5410-04	.3410-01	2590	533.1
753	.87500	28.017	2317.0	.1027-01	.238-01	.1238-01	.9000	.3592-03	.4330-03	.2724	2.178	534.4
753	1.6970	28.017	2319.0	.5310-02	.6400-02	.6400-02	.9000	.1857-03	.2239-03	1410	1.070	533.6
753	1.8370	27.275	2316.0	.1788-02	.2155-02	.2155-02	.9000	.6254-04	.7537-04	.4752-01	13609	532.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3171

OH84B 60-0 UPPER BODY FLAP

(R40251)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
BDFLAP = 15.00 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
747	2.979	7.990	40.06	-4686-06	660.0	1316	95.56	6816-01	3.046	3829	.1925-02	.7690-07
RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R, = 0175										
747	4312-01	2351-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=.8 TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG R /SEC	TW DEG R
747	00000	27.274	2314.0	.2550-03	.3065-03	.3065-03	9000	.1100-04	.1322-04	8610-02	.7566-01	532.6
747	00000	27.017	2315.0	.6558-02	.7891-02	.7891-02	.9000	.2828-03	.3403-03	2204	2.594	536.4
747	87500	27.275	2316.0	.5821-03	.6997-03	.6997-03	.9000	.2510-04	.3017-04	1966-01	1.493	532.6
747	87500	28.717	2317.0	.1043-01	.1254-01	.1254-01	9000	.4496-03	.5408-03	.3509	2.804	535.3
747	1.6970	28.017	2319.0	.4755-02	.5717-02	.5717-02	9000	.2050-03	.2465-03	1603	1.217	533.7
747	1.8370	27.275	2318.0	.2036-02	.2448-02	.2448-02	9000	.8781-04	.1056-03	6872-01	.5219	533.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3172

OH84B 60-0 UPPER BODY FLAP

(R4U252)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.001    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 23.51    SPOBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
763	4981	7.900	39.97	-3462-02	99.31	1252.	92.84	.1104-01	4822	3732.	.3209-03	.7471-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (P) =.0175
763	1701-01	5729-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
763	.00000	27.274	2314 0	.7058-03	.8540-03	.8540-03	.9000	.1200-04	.1453-04	.8657-02	.7615-01	530.5
763	.00000	28.017	2315 0	.1550-01	.1877-01	.1877-01	.9000	.2637-03	.3193-03	.1895	2.234	533.0
763	.87500	27.275	2316 0	.5101-03	.6172-03	.6172-03	.9000	.8677-05	.1050-04	.6259-02	.4760-01	530.3
763	.87500	28.017	2317 0	.2215-01	.2682-01	.2682-01	.9000	.3768-03	.4562-03	.2710	2.169	532.5
763	1.6970	28.017	2319 0	.8105-02	.9808-02	.9808-02	.9000	.1379-03	.1668-03	.9937-01	.7555	530.9
763	1.8370	27.275	2318 0	.3148-02	.3809-02	.3809-02	.9000	.5355-04	.6479-04	.3863-01	.2938	530.3



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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3173

OH84B 60-0 UPPER BODY FLAP

(R4U252)

UPR BODYFLAP

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
BDFLAP = 23.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
761	1.006	7.940	39.99	-4652-06	206.4	1265.	32.93	2220-01	.9799	3752	.6449-03	.7478-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
761	2429-01	4046-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDY DEG. R /SEC	TW DEG. R
761	00000	27.274	2314.0	7373-03	8912-03	.8912-01	.9000	1791-04	2165-04	1312-01	1153	532.3
761	00000	28.017	2315.0	1169-01	1414-01	1414-01	.9000	2839-03	3434-03	2071	2.440	535.0
761	87500	27.275	2316.0	1015-02	1227-02	1227-02	.9000	2465-04	2980-04	1806-01	.1372	532.3
761	87500	28.017	2317.0	1967-01	2379-01	2379-01	.9000	4777-03	5778-03	.3489	2.790	534.3
761	1.6970	28.017	2319.0	8717-02	1054-01	1054-01	.9000	2117-03	2550-03	.1549	1.176	533.2
761	1.8370	27.275	2318.0	3496-02	4226-02	4226-02	.9000	8492-04	1027-03	6217-01	.4722	532.6

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3174

OH84B 60-0 UPPER BODY FLAP

(R4U252)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = 23.00 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT x10.6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
751	1.987	7.990	40.06	-4685-06	435.2	1309	95.27	4531-01	2.020	3818.	.1284-02	.7667-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
751	3508-01	.2878-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	Y0 MS	X0 MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG R /SEC	TW DEG R
751	00000	27.274	2314.0	2221-02	2670-02	2670-02	9000	.7791-04	9368-04	6056-01	.5325	531.3
751	00000	28.017	2315.0	1580-01	1901-01	1901-01	9000	.5542-03	6670-03	4286	5.049	535.2
751	87500	27.275	2316.0	1874-01	2258-01	2258-01	9000	.6575-03	7924-03	.5054	3.824	540.0
751	87500	28.017	2317.0	2212-01	2662-01	2662-01	9000	.7760-03	9338-03	6008	4.803	534.4
751	1.6970	28.017	2319.0	1100-01	1323-01	1323-01	9000	.3959-03	4641-03	.2996	2.276	532.3
751	1.8370	27.275	2318.0	.4166-02	5009-02	5009-02	9000	.1461-03	.1757-03	.1136	8630	531.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3175

OH84B 60-0 UPPER BODY FLAP

(R4U252)

UPR BODYFLAP

## PARAMETRIC DATA

MACH = 8.030 ALPHA = 40.00 BETA = 0000 ELEVON = 7.500  
 BDFLAP = 23.30 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
749	2.958	7.990	40.06	-4686-06	659.9	1322.	96.00	6815-01	3.045	3838.	.1916-02	.7725-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
749	4315-01	2358-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	YO MS	XO MS	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF F=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/P FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
749	00000	27.274	2314.0	1474-02	1771-02	1771-02	9000	6362-04	7644-04	5012-01	4402	533.8
749	00000	28.017	2315.0	1043-01	1255-01	1255-01	.9000	4501-03	5414-03	3527	4.148	538.0
749	87500	27.275	2316.0	8368-02	1007-01	1007-01	.9000	.3611-03	4343-03	2831	2.145	537.7
749	87500	28.017	2317.0	1946-01	.2341-01	2341-01	.9000	.8398-03	1010-02	6585	5.257	537.6
749	1.6970	28.017	2319.0	.7707-02	.9263-02	9263-02	.9000	.3326-03	.3997-03	2618	1.986	534.7
749	1.8370	27.275	2318.0	.4527-02	.5441-02	.5441-02	.9000	.1954-03	.2348-03	.1538	1.167	534.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3176

OH84B 60-0 ORBITER BASE

(R4U129)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BDFLAP = -12.50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
717	5091	7.900	39.99	3469-02	100.3	1242	92.10	.1115-01	4869	3717.	3266-03	.7411-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
717	1707-01	5674-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	ODOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
717	320.00	-110.00	431.00	2127-02	2567-02	2567-02	9000	.3631-04	4382-04	2630-01	.2231	517.4

DATE 23 FEB 60

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U129)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BDFLAP = -12.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
715	1.013	7.940	39.99	3469-02	207.7	1264.	92.86	.2234-01	9860	3751.	.6495-03	.7472-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
715	2436-01	4031-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/10	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
715	320.00	-110.00	431.00	3475-02	.4189-02	.4189-12	.9000	8468-04	1021-03	6279-01	.5312	522.1
715	430.00	00000	428.00	3025-03	.3645-03	3645-13	9000	.7369-05	8881-05	5470-02	.4412-01	521.4

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U129)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.001    ALPHA = 40.00    BETA = 0000    ELEVON = -15.00  
 BDFLAP = -12.51    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X:0 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
709	2 011	7.980	40 04	1046-01	432 9	1294	94.18	.4507-01	2 009	3796.	.1292-02	.7579-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
709	3492-01	2865-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
709	320 00	-110 00	431 00	5103-02	6134-02	6134-02	9000	.1782-03	2142-03	1373	1 160	523.5
709	430 00	00000	428 00	2050-03	2464-03	2464-03	.9000	.7158-05	.8605-05	.5509-02	.4436-01	524.1
709	430 00	-70 000	429 00	8262-04	9932-04	9932-04	.9000	.2885-05	3468-05	.2220-02	1845-01	524 2

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U129)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BOFLAP = -12.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
707	3 005	7.990	40 06	.6989-02	671.7	1324.	96.14	.6937-01	3.100	3841.	.1947-02	.7736-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
707	.4355-01	2339.01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TH DEG R
707	320.00	-110.00	431.00	.4840-02	.5810-02	.5810-02	.9000	.2108-03	.2530-03	.1671	1.406	530.9
707	430.00	.00000	428 00	.3978-03	.4774-03	.4774-03	.9000	.1732-04	.2079-04	.1375-01	.1103	530.1
707	430.00	-70.000	429 00	.3347-03	.4017-03	.4017-03	.9000	.1458-04	.1749-04	.1157-01	.9579-01	530.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U130)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
719	.5000	7.900	39 99	.3465-02	100 3	1257.	93.21	.1115-01	.4869	3739.	.3227-03	.7501-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
719	.1711-01	5715-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TH DEG. R
719	320 00	-110.00	431.00	.2177-02	.2626-02	.2626-02	.9000	.3725-04	.4492-04	.2741-01	.2321	520.6
719	430 00	.00000	428 00	.2965-03	.3574-03	.3574-03	.9000	.5071-05	.6114-05	.3736-02	.3016-01	520.0
719	430.00	-70 000	429.00	.4034-03	.4864-03	.4864-03	.9000	.6900-05	.8320-05	5082-02	.4234-01	520.2



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U130)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BOFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
713	.9943	7.940	39.99	.6941-02	204.3	1266.	93.00	.2198-01	.9699	3754.	.6378-03	.7484-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
713	.2417-01	.4069-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
713	320.00	-110.00	431.00	.3387-02	.4078-02	.4078-02	.9000	.8188-04	.9858-04	.6116-01	.5185	518.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U130)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.030 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BDFLAP = 0030 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
711	1.999	7.980	40.06	.1048-01	436.8	1307.	95.13	.4548-01	2.027	3815.	.1290-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
711	.3514-01	.2870-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
711	320.00	-110.00	431.00	.5652-02	.6789-02	.6789-02	.9000	.1986-03	.2386-03	.1550	1.307	526.4
711	430.00	.00000	428.00	.3912-03	.4697-03	.4697-03	.9000	.1375-04	.1651-04	.1075-01	.8651-01	524.8
711	430.00	-70.000	429.00	.1844-03	.2214-03	.2214-03	.9000	.6479-05	.7778-05	.5066-02	.4209-01	524.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U130)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -15.00  
BCFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
705	3 029	7 990	40.07	.3498-02	670 2	1315	95 49	.6921-01	3.093	3827	.1956-02	.7684-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
705	.4345-01	2332-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TR	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
705	320.00	-110 00	431.00	.4909-02	.5900-02	.5900-02	.9000	.2133-03	.2564-03	.1669	1.403	532.3
705	430.00	00000	428 00	.1390-03	.1671-03	.1671-03	.9000	.6040-05	.7260-05	.4727-02	.3788-01	532.1
705	430 00	-70 000	429.00	.1442-03	.1733-03	.1733-03	.9000	.6264-05	.7529-05	.4902-02	.4055-01	532.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U131)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.100    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
 BDFLAP = -12.50    SPDRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG I'	T CEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
725	4997	7.900	39.98	-1733-01	100.5	1259	93.36	.1117-01	4878	3742.	.3228-03	.7513-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
725	1713-01	5716-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
725	320.00	-110.00	431.00	1533-02	1850-02	.1850-12	.9000	2625-04	3168-04	.1925-01	.1625	525.2
725	430.00	00000	428.00	1872-03	.2260-03	2260-13	.9000	3205-05	3870-05	.2350-02	.1891-01	525.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U131)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.00) ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
BDFLAP = -12.5) SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
739	9893	7.940	39.98	-2427-01	204.0	1269.	93.22	2194-01	9684	3758	.6353-03	.7502-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (P) = 0175										
739	2416-01	4077-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
739	320.00	-110.00	431.00	.2406-02	.2902-02	.2902-02	.9000	5815-04	.7013-04	.4316-01	.3642	526.3
739	430.00	00000	428.00	.1036-03	.1250-03	.1250-03	.9000	.2504-05	3021-05	.1859-02	.1495-01	526.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCVIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U131)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
 BDFLAP = -12.50    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
737	2.03	7.960	40.04	-2093-01	434.1	1300	94.62	.4520-01	2.015	3805	.1289-02	.7614-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) =.0175
737	3500-01	.2870-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
737	320.00	-110.00	431.00	.3663-02	.4401-02	.4401-02	.9000	.1282-03	.1540-03	.9943-01	.8400	524.2
737	430.00	.00000	428.00	.2220-03	.2670-03	.2670-03	.9000	.7771-05	.9344-05	.6000-02	.4821-01	527.6
737	430.00	-70.000	429.00	.1021-03	.1228-03	.1228-03	.9000	.3574-05	.4297-05	.2759-02	.2288-01	527.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U131)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
BDFLAP = -12.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
727	3 035	7 990	40 06	- 2097-01	670 9	1314.	95 41	.6928-01	3.096	3826.	.1960-02	.7678-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
727	4347-01	2330-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
727	320.00	-110 00	431 00	3909-02	.4685-02	.4685-02	.9000	.1699-03	2036-03	.1347	1.141	520.6
727	430.00	.00000	428 00	1710-03	.2049-03	2049-03	.9000	.7433-05	8907-05	.5897-02	.4760-01	520.2
727	430 00	-70 000	429 00	1256-03	.1506-03	1506-03	.9000	.5460-05	.6544-05	.4329-02	.3606-01	520.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U132)

OPBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = -5.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
723	4957	7.900	39.97	-1731-01	100.1	1263	93.66	.1113-01	4862	3748.	.3207-03	.7536-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) =.0175
723	1711-01	5736-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
723	320.00	-110.00	431.00	1459-02	.1759-02	.1759-02	.9000	.2496-04	3009-04	.1847-01	.1562	522.4
723	430.00	00000	428.00	7821-03	.9430-03	.9430-03	.9000	1338-04	.1613-04	.9902-02	.7981-01	522.5
723	430.00	-70.000	429.00	.5713-03	.6887-03	.6887-03	.9000	9772-05	.1178-04	.7236-02	.6022-01	522.2



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITTER BASE

1R4U132)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
BDFLAP = -5.000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEC F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
741	9943	7.940	39 99	- 2082-01	204.3	1266	93.00	.2198-01	9699	3754.	.6378-03	.7484-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) * 0175 4069-01
741	2417-01	

\*\*\*TEST QA\*A\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
741	320.00	-110 00	431 00	2395-02	2890-02	.2890-12	.9000	.5788-04	.6985-04	.4275-01	.3605	527.0
741	430.00	.00000	428 00	1193-03	.1440-03	.1440-13	.9000	2883-05	3479-05	2128-02	.1710-01	527.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U132)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.1100    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
 BDFLAP = -5.1100    SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
735	1.997	7.980	40.06	-2095-01	434.8	1304.	94.91	.4527-01	2.018	3811.	.1287-02	.7637-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = C175
735	3504-01	2873-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TJ	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
735	320.00	-110.00	431.00	4368-02	.5247-02	.5247-02	.9000	.1531-03	.1839-03	.1191	1.005	525.8
735	430.00	00000	428.00	2884-03	.3464-03	.3464-03	.9000	.1011-04	.1214-04	.7868-02	.6331-01	525.2
735	430.00	-70.000	429.00	.1963-03	2358-03	.2358-03	.9000	.6879-05	8263-05	.5356-02	.4449-01	525.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER LIASE

(R4U132)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
BDFLAP = -5.000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
729	3.003	7.990	40.07	-20.97	668.3	1320	95.85	.6901	3.084	3835.	.1943	7713

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
729	4342-01	.2341-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
729	320.00	-110.00	431.00	.2246	.2690	.2690	9000	.9752	.1168	.7806	.6614	519.3
729	430.00	.0000	428.00	.2920	.3501	.3501	.9000	.1268	.1520	.1007	.8103	525.3
729	430.00	-70.000	429.00	.1807	.2168	.2168	.9000	.7847	.9412	.6230	.5173	525.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U133)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.0000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = .0000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
721	.5028	7.900	39.98	-.1386-01	100.9	1257	93.21	.1121-01	.4897	3739.	.3245-03	7501-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
721	1715-01	5699-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
721	320.00	-110.00	431.00	2181-02	.2634-02	2634-02	.9000	3742-04	4518-04	.2736-01	2310	525.4
721	430.00	00000	429.00	.4484-03	5414-03	5414-03	.9000	7691-05	9286-05	5626-02	.4527-01	525.2
721	430.00	-70.000	429.00	3676-03	4439-03	4439-03	.9000	6306-05	7614-05	4613-02	.3832-01	525.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U133)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -12.50  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
743	1.018	7.940	39.99	-2081-01	209.4	1267.	93.08	2253-01	.9941	3755.	6532-03	.7490-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
743	2447-01	4021-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
743	320.00	-110.00	431.00	9418-03	.1134-02	.1134-02	.9000	2305-04	.2776-04	1722-01	.1458	519.8
743	430.00	00000	428.00	1430-03	1726-03	.1726-03	.9000	.3501-05	.4225-05	2587-02	.2079-01	527.7

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSCNIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U133)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -12.50  
 BDFLAP = .0000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
733	1.990	7.980	40.04	-2091-01	433.8	1305.	94.98	.4516-01	2.013	3813.	.1283-02	.7643-07

RUN NUMBER	HREF BTU/R F*2SEC	SIN NO REF(R) = 0175
733	3501-01	2877-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
733	320.00	-110.00	431.00	.2242-02	.2693-02	.2693-02	.9000	.7850-04	.9427-04	.6124-01	.5172	524.5
733	430.00	.00000	428.00	.2855-03	.3429-03	.3429-03	.9000	.9996-05	.1200-04	.7796-02	.6275-01	524.8
733	430.00	-70.000	429.00	.8788-04	.1055-03	.1055-03	.9000	.3076-05	.3695-05	.2398-02	.1992-01	525.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U133)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.0(1) ALPHA = 40.00 BETA = 0000 ELEVON = -12.50  
BDFLAP = .00(1) SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
731	3.017	7.990	40.06	-20.96-01	671.5	1320.	95.85	.6935-01	3.099	3835.	.1953-02	.7713-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175										
731	4352-01	2335-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
731	320.00	-110.00	431.00	3163-02	3794-02	3794-02	.9000	.1377-03	1651-03	.1093	.9230	525.5
731	430.00	00000	428.00	5257-03	6303-03	6303-03	9000	2288-04	2743-04	.1820-01	1465	524.4
731	430.00	-70.000	429.00	.3367-03	.4037-03	4037-03	9000	.1465-04	1757-04	.1165-01	9683-01	524.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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CH84B 60-0 ORBITER BASE

(R4U134)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.030    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
 BDFLAP = -12.50    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
633	5017	7.900	39.93	-.3449-02	100.0	1252.	92.84	.1112-01	.4857	3732.	.3232-03	.7471-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
633	1707-01	5709-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWOT DEG. R /SEC	TW DEG. R
633	320.00	-110.00	431.00	.1250-03	.1512-03	.1512-03	.9000	.2134-05	.2580-05	.1546-02	.1303-01	527.5
633	430.00	.00000	428.00	.7275-03	.8797-03	.8797-03	.9000	.1242-04	.1502-04	.8984-02	.7215-01	528.3
633	430.00	-70.000	429.00	.2609-03	.3156-03	.3156-03	.9000	.4455-05	.5387-05	.3221-02	.2670-01	528.5



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OH84B MODEL 60-0 IN THE AEOC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U134)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = -12.50 SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
659	1.001	7.940	39.97	-4.645-06	206.7	1270.	93.30	2223-01	.9811	3760.	.6431-03	.7508-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
659	.2432-01	4053-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
659	320.00	-110.00	431.00	4515-03	5439-03	5439-03	9000	1098-04	1323-04	8214-02	6949-01	521.8
659	430.00	00000	428.00	2485-03	2995-03	2995-03	9000	6044-05	7285-05	4506-02	3628-01	524.1
659	430.00	-70.000	429.00	1225-03	1477-03	1477-03	9000	2981-05	3592-05	2223-02	1849-01	523.7

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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## OH84B 60-0 ORBITER BASE

(R4U134)

## ORBITER BASE

## PARAMETRIC DATA

MACH = 8.00    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
 BOFLAP = -12.50    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT Y1Q 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
647	1.985	7.980	40.00	3471-02	436.3	1312.	95.49	.4542-01	2.025	3823	.1284-02	.7684-07

RUN NUMBER	H-REF BTU/R FT <sup>2</sup> SEC	STN NO REF (R) =.0175
647	3514-01	2878-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
647	320.00	-110.00	431.00	.2810-03	.3378-03	.3378-13	9000	9873-05	.1187-04	7699-02	.6474-01	531.9
647	430.00	.00000	428.00	.4779-03	.5745-03	.5745-13	.9000	1679-04	2019-04	1310-01	.1050	531.7
647	430.00	-70.000	429.00	.3342-03	.4017-03	.4017-13	.9000	.1174-04	.1412-04	.9163-02	.7583-01	531.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U134)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = -12.50 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
649	3.013	7.990	40.03	6967-02	670.5	1320.	95.85	6924-01	3.094	3835	.1956-02	.7713-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
649	4349-01	2337-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
649	320.00	-110.00	431.00	4650-03	5577-03	5577-03	.9000	.2022-04	2425-04	1606-01	1356	525.3
649	430.00	00000	428.00	.1346-03	.1614-03	1614-03	9000	.5852-05	7020-05	4642-02	.3733-01	526.5
649	430.00	-70.000	429.00	.4041-04	.4848-04	.4848-04	9000	.1757-05	2108-05	1893-02	1156-01	526.8

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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0484B 60-0 ORBITER BASE

(R4U135)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.0011    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
BDFLAP = -5.0011    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
635	4992	7 900	39.96	- 3458-02	99 17	1249.	92 62	1102-01	.4815	3727.	.3212-03	.7453-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
635	1699-01	5725-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
635	430 00	.00000	428.00	.4001-03	.4841-03	.4841-03	.9000	.6799-05	8225-05	.4896-02	.3931-01	528.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3201

OH84B 60-0 ORBITER BASE

(R4U135)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = -5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
657	9860	7.940	39 99	- 4654-06	202.4	1265	92.93	.2177-01	9606	3752.	6322-03	7478-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
657	2405-01	4086-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
657	430 00	00000	428 00	.1680-03	2026-03	2026-03	.9000	.4040-05	.4873-05	.2991-02	.2408-01	524.3

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U135)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 SDFLAP = -5.000 SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
645	1.997	7.980	40.01	-4664-06	434.4	1303.	94.84	4522-01	2.016	3810.	.1287-02	.7631-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
645	3502-01	2873-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	I/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
645	320.00	-110.00	431.00	2147-03	2585-03	2585-03	.9000	.7519-05	.9051-05	5784-02	.4859-01	533.4
645	430.00	00000	428.00	.2333-03	.2809-03	.2809-03	.9000	.8171-05	.9837-05	6282-02	.5029-01	533.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U135)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
 BDFLAP = -5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUG\$ /FT3	MU LB-SEC /FT2
655	2.999	7.990	40.01	6952-02	675.0	1330	96.58	6970-01	3.115	3849	1948-02	.7772-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
655	4369-01	2340-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
655	320.00	-110.00	431.00	7329-03	8786-03	8786-03	.9000	3202-04	3839-04	2566-01	.2163	528.2
655	430.00	00000	428.00	3452-03	.4138-03	.4138-03	9000	.1508-04	1808-04	.1209-01	.9711-01	528.1
655	430.00	-70.000	429.00	3144-03	3768-03	.3768-03	9000	1373-04	1646-04	.1101-01	.9133-01	527.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3204

OH84B 60-0 ORBITER BASE

(R4U136)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
663	1 016	7.940	39 97	- 4643-06	207.3	1260.	92 56	.2230-01	9840	3745	.6501-03	.7449-07

RUN NUMBER	HREF BTU/ R FT2SEC = 0175	STN NO REF(R) = 0175
663	2433-01	.4028-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
663	320 00	-110.00	431.00	2496-03	.3012-03	.3012-03	.9000	.6072-05	.7327-05	4462-02	3768-01	524.7
663	430 00	00000	428 00	3732-03	.4504-03	.4504-03	.9000	9079-05	1096-04	6673-02	.5371-01	524.7
663	430 00	-70 000	429.00	1074-03	.1297-03	1297-03	9000	2614-05	3154-05	.1921-02	1596-01	524.6



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASL

(R4U136)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	P0 PSIA	T0 DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
643	2.006	7.980	39.98	-10.40-01	434.5	1239.	94.54	.4523-01	2.016	3804.	.1291-02	7608-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
643	3501-01	2867-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
643	320.00	-110.00	431.00	1948-03	2340-03	2340-03	.9000	.6818-05	8193-05	.5277-02	.4456-01	524.7
643	430.00	00000	428.00	2147-03	2580-03	.2580-03	.9000	.7515-05	.9031-05	5815-02	.4680-01	524.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U136)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = 0000 ELEVON = -5.000  
 BDFLAP = .0000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
653	2.998	7.990	40.02	6962-02	672.4	1327.	96.36	.6944-01	3.103	3845.	.1945-02	.7754-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
653	.4359-01	2341-01

## \*\*\*TEST DATA \*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWOT DEG. R /SEC	TW DEG. R
653	320.00	-110.00	431.00	7063-03	8472-03	8472-03	9000	3079-04	3693-04	2455-01	.2068	529.2
653	430.00	00000	428.00	2776-03	3329-03	3329-03	9000	.1210-04	1451-04	.9654-02	7752-01	528.8
653	430.00	-70.000	429.00	2740-03	.3287-03	.3287-03	9000	.1195-04	1433-04	.9531-02	.7900-01	528.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U137)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.001    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
 BOFLAP = 5.001    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
639	5035	7.900	39.95	- 1383-01	99 79	1247.	92 47	1109-01	4845	3724.	.3237-03	.7441-07

PUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
639	1704-01	.5702-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/T0	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
639	430 00	00000	428 00	2730-03	3301-03	3301-03	9000	.4652-05	.5624-05	.3356-02	.2701-01	525.3
639	430 00	-70.000	429 00	.1709-03	.2066-03	.2066-03	.9000	.2912-05	.3520-05	.2102-02	.1746-01	525.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U137)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.003    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
 BDFLAP = 5.003    SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MJ LB-SEC /FT2
661	1.021	7.940	39.97	-4644-06	206.8	1254.	92.12	2224-01	.9816	3736	.6517-03	.7413-07

RUN NUMBER	H-REF BTU/ R FT2SEC	STN NO REF(R) =.0175
661	2428-01	4021-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/T0	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
661	320.00	-110.00	431.00	2179-03	.2632-03	.2632-03	.9000	5291-05	.6389-05	.3859-02	.3260-01	524.2
661	430.00	.00000	429.00	3477-03	.4199-03	.4199-03	.9000	8441-05	1019-04	.6156-02	.4956-01	524.4

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U137)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = -5.000  
BDFLAP = 5.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
641	2.028	7.980	39.99	-.6938-02	435.7	1292.	94.03	.4536-01	2.022	3794	.1302-02	.7567-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
641	3502-01	.2854-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
641	320.00	-110.00	431.00	.1299-03	.1561-03	.1561-02	.9000	.4550-05	.5465-05	.3508-02	.2970-01	520.7
641	430.00	00000	428.00	.2051-03	.2465-03	.2465-02	.9000	.7184-05	.8631-05	.5532-02	.4462-01	521.5
641	430.00	-70.000	429.00	.1110-03	.1333-03	.1333-02	.9000	.3897-05	.4670-05	.2994-02	.2492-01	521.4

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL  
OH84B 60-0 ORBITER BASE

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(R4U137)

ORBITER BASE

## PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = -5.000  
 BDFLAP = 5.010    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
651	2.990	7.990	40.05	3490-02	671.4	1328.	96.43	.6934-01	3.098	3846.	.1941-02	7760-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
651	4356-01	.2344-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
651	320.00	-110.00	431.00	4710-03	.5645-03	.5645-03	.9000	2052-04	.2459-04	1643-01	.1386	526.7
651	430.00	00000	428.00	2838-03	3402-03	.3402-03	.9000	1237-04	1482-04	9905-02	.7963-01	526.7
651	430.00	-70.000	429.00	2408-03	2887-03	.2887-03	.9000	.1049-04	.1258-04	8407-02	.6979-01	526.3

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OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U138)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.0100 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = -12.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X1Q 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
631	5096	7.900	39.97	.1384-01	101.0	1247.	92.47	.1122-01	.4903	3724.	3276-03	.7441-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) =.0175
631	1714-01	5668-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QOOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
631	430.00	00000	428.00	5285-03	.6386-03	6386-03	.9000	.9059-05	.1095-04	.6546-02	.5272-01	524.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U138)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = -12.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
605	1.013	7.940	39.97	.1385-01	206.2	1258.	92.42	.2218-01	.9787	3742.	.6477-03	.7437-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
605	2425-01	.4035-01

\*\*\*TEST DATA\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
605	320.00	-110.00	431.00	1042-03	.1257-03	1257-03	.9000	.2527-05	3048-05	1858-02	1571-01	522.4
605	430.00	00000	428.00	.2871-03	.3465-03	.3465-03	.9000	.6965-05	8403-05	.5116-02	.4122-01	523.1
605	430.00	-70.000	429.00	1517-03	.1830-03	.1830-03	.9000	.3680-05	4439-05	.2704-02	.2250-01	522.7



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0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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0484B 60-0 ORBITER BASE

(R4U138)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.001    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = -12.51    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
603	2.009	7.980	39.99	1734-01	434.1	1297.	94.40	4519-01	2.014	3801.	.1292-02	.7596-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
603	3.98-01	2866-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
603	320.00	-110.00	431.00	.2009-03	.2416-03	.2416-03	.9000	.7028-05	.8450-05	.5418-02	.4573-01	525.7
603	430.00	.00000	428.00	.4165-03	.5007-03	.5007-03	.9000	.1457-04	.1752-04	.1123-01	.9029-01	526.0
603	430.00	-70.000	429.00	.3555-03	.4273-03	.4273-03	.9000	.1244-04	.1495-04	.9590-02	.7965-01	525.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U138)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = -12.50    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
581	2.994	7.990	40.05	1047-01	671.7	1327.	96.36	.6937-01	3.100	3845.	.1943-02	.7754-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
581	.4357-01	2342-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/T0	H(T0) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
581	320.00	-110.00	431.00	5433-03	.6526-03	.6526-03	.9000	.2367-04	2843-04	.1875-01	.1574	534.7
581	430.00	.00000	428.00	3031-03	.3640-03	.3640-03	.9000	.1321-04	.1586-04	.1047-01	.8385-01	533.6
581	430.00	-70.000	429.00	4224-03	5071-03	5071-03	.9000	.1840-04	2209-04	.1460-01	.1207	533.1

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0484B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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0484B 60-0 ORBITER BASE

(R4U139)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = -5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	P0 PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
621	4994	7.900	39.93	1380-01	97.55	1235	91.58	.1084-01	.4736	3706	.3195-03	.7369-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
621	1682-01	5733-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.5	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
621	430.00	.00000	428.00	1454-03	.1758-03	1758-03	9000	.2445-05	.2956-05	1745-02	.1408-01	520.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U139)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.010    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = -5.010    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
615	1.002	7.940	39.97	1384-01	204.7	1261.	92.64	.2202-01	.9716	3746.	.6415-03	.7454-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
615	2418-01	4055-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.8 TAW/TO	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
615	320.00	-110.00	431.00	9934-04	.1198-03	.1198-03	9000	.2402-05	.2897-05	.1771-02	.1496-01	523.4
615	430.00	00000	428.00	3725-03	.4494-03	.4494-03	.9000	.9006-05	.1086-04	.6639-02	.5347-01	523.6
615	430.00	-70.000	429.00	.1454-03	.1754-03	.1754-03	.9000	.3515-05	.4239-05	.2591-02	.2155-01	523.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U139)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.010 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = -5.010 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
593	2.004	7.980	40 00	1389-01	436.0	1303	94.84	.4539-01	2.023	3810.	.1292-02	.7631-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175										
593	3509-01	2867-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
593	320 00	-110 00	431 00	.3549-03	4264-03	.4264-03	.9000	1245-04	1496-04	9683-02	.8175-01	525.1
593	430 00	00000	428 00	3214-03	3860-03	.3860-03	.9000	.1128-04	.1354-04	.8770-02	7058-01	524.9
593	430 00	-70 000	429 00	1615-03	.1939-03	.1939-03	.9000	.5665-05	6804-05	.4407-02	.3662-01	524 7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3218

OH84B 60-0 ORBITER BASE

(R4U139)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = -5.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
579	2.997	7.990	40.02	.1044-01	670.8	1325.	96.21	6927-01	3.096	3842.	.1943-02	.7742-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
579	.4353-01	2342-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
579	320.00	-110.00	431.00	5824-03	.7002-03	.7002-03	.9000	.2535-04	.3048-04	.1996-01	1673	537.3
579	430.00	.00000	428.00	2061-03	.2478-03	.2478-03	.9000	.8972-05	.1078-04	7071-02	.5651-01	536.5
579	430.00	-70.000	429.00	.2633-03	.3165-03	.3165-03	.9000	.1146-04	.1378-04	.9033-02	.7451-01	536.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3219

OH84B 60-0 ORBITER BASE

(R4U140)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

PUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
623	4983	7.900	39.97	1384-01	99.83	1256	93.14	1109-01	.4847	3737.	.3215-03	.7495-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
623	1706-01	572E-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	DTW DEG. R
623	430.00	.00000	428.00	.2680-03	.3234-03	3234-03	9000	4574-05	.5518-05	.3354-02	.2703-01	522.4

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3220<sup>1</sup>

OH84B 60-0 ORBITER BASE

(R4U140)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. F	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
613	1.004	7.940	39.97	1731-01	204.8	1260.	92.56	.2203-01	9721	3745.	.6423-03	.7449-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) =.0175
613	2419-01	.4052-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TC	TAW/TO	H(TO) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG. R
613	430.00	00000	428.00	2496-03	.3011-03	.3011-03	.9000	.6034-05	.7279-05	.4444-02	.3580-01	523.2



DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U140)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.130 ALPHA = 40.00 BETA = 0000 ELEVON = .0000  
BDFLAP = .0100 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	TO DEG. F	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
595	2.001	7.980	40.02	1392-01	435.8	304	94.91	.4537-01	2.022	3811	.1290-02	.7637-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
595	3508-01	2869-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
595	320.00	-110.00	431.00	2605-03	.3130-03	.3130-J3	.9000	9140-05	.1098-04	7104-02	.5994-01	526.4
595	430.00	00000	428.00	3105-03	.3731-03	.3731-J3	9000	.1089-04	.1309-04	.8469-02	.6811-01	526.2
595	430.00	-70.000	429.00	1374-03	.1651-03	.1651-J3	.9000	.4822-05	.5793-05	.3749-02	.3112-01	526.2

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3222

OH84B 60-0 ORBITER BASE

(R4U140)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.100    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = .0100    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
577	3.019	7.990	40.06	6989-02	670.3	1318.	95.71	.6922-01	3.093	3832.	.1952-02	.7701-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF (R) = 0175
577	4347-01	.2335-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
577	320.00	-110.00	431.00	5585-03	6715-03	6715-33	.9000	2428-04	2919-04	1902-01	.1597	534.2
577	430.00	00000	428.00	1500-03	.1804-03	.1804-33	.9000	6521-05	.7840-05	.5109-02	.4088-01	534.3
577	430.00	-70.000	429.00	1478-03	.1776-03	1776-33	.9000	6423-05	7722-05	5031-02	.4156-01	534.4

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VK\* HYPERSONIC TUNNEL

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OH84B 60-O ORBITER BASE

(R4U141)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 5.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN'L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
625	5056	7.900	39.96	1729-01	100.1	1246.	92.40	1112-01	.4859	3723	.3249-03	7435-07
RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(P) = 0175										
625	1706-01	5691-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P= TAW/10	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
625	430.00	00000	428.00	4125-03	4984-03	4984.33	9000	.7038-05	8503-05	.5086-02	.4098-01	523.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U141)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BOFLAP = 5.000 SPOBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
611	9967	7.940	39.96	1384-01	204.6	1265.	92.93	2201-01	.9711	3752	.6391-03	7478-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
611	2418-01	4064-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.8 TAW/TO	TAW/TO	H(T0) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG R
611	320.00	-110.00	431.00	.1310-03	.1579-03	.1579-03	.9000	.3168-05	.3819-05	2353-02	.1990-01	522.1
611	430.00	00000	428.00	.5127-03	.6180-03	.6180-03	.9000	1240-04	.1494-04	9204-02	.7419-01	522.3
611	430.00	-70.000	429.00	.2308-03	.2782-03	.2782-03	.9000	5582-05	.6727-05	.4145-02	.3450-01	522.1

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC V F HYPERSONIC TUNNEL

PAGE 3225

OH84B 60-0 ORBITER BASE

(R4U141)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 5.000 SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TC DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
597	2.013	7.980	40.02	1392-01	434.8	1297	94.40	.4526-01	2.018	3801.	.1294-02	.7596-07

RUN NUMBER	HREF BTU/R FT2SEC	SIN NO REF(R) = 0175
597	3501-01	2863-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
597	320.00	-110.00	431.00	3126-03	3758-03	3758-03	.9000	1094-04	1316-04	2440-02	.7125-01	525.4
597	430.00	00000	428.00	3958-03	4758-03	4758-03	.9000	1386-04	1666-04	1069-01	8600-01	525.4
597	430.00	-70.000	429.00	1743-03	.2095-03	.2095-03	9000	6103-05	7335-05	.4711-02	.3914-01	524.8

DATE 23 FEB 80

OH94B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH94B 60-0 ORBITER BASE

(R4U141)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 EDFLAP = 5.000 SPDBRK = 0000

## \*\*\*TEST CONDITIONS\*\*\*

PUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
583	2.999	7.990	40.05	1396-01	671.1	1325	93.21	6930-01	3.097	3842.	.1944-02	.7742-07

PUN NUMBER	HREF BTU/R FT2SEC	STN NO REFIR = 0175
583	4354-01	2341-01

## \*\*\*TEST DATA\*\*\*

PUN NUMBER	ZC	YO	T/C NO	H/HREF R=1.0	H/HREF P=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/P FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
583	320.00	-110.00	431.00	5170-03	6204-03	.6204-03	.3000	2251-04	2701-04	.1788-01	.1505	530.3
583	430.00	00000	428.00	2557-03	3068-03	3068-03	.3000	.1113-04	1336-04	8852-02	.7105-01	529.4
583	430.00	-70.000	429.00	4071-03	4883-03	.4883-03	.3000	1772-04	.2126.04	1410-01	.1169	528.8

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U142)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 8.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

PUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TC DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
619	5007	7.900	39.95	1383-01	99.45	1239	9.88	1105-01	4829	3712	3247-03	.7393-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
619	1699-01	5589-01

\*\*\*TEST DATA\*\*\*

FUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
619	320.00	-110.00	431.00	1357-03	.1641-03	.1641-03	3000	2306-05	2798-05	.1652-02	.1398-01	522.0
619	430.00	00000	428.00	6504-03	.7865-03	.7865-03	3000	.1105-04	1336-04	.7913-02	.6378-01	522.6

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DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3228

OH84B 60-0 ORBITER BASE

(R4U142)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 8.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
617	1.002	7.940	39.97	1731-01	206.2	1267	93.08	.2218-01	9787	3755.	.6431-03	.7490-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
617	.2428-01	4052-0

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
617	320.00	-110.00	431.00	.1229-03	.1481-03	.1481-03	.9300	2984-05	3596-05	2220-02	1877-01	522.8
617	430.00	00000	428.00	.4014-03	.4838-03	.4838-03	.3000	.9749-05	1175-04	7251-02	5843-01	522.9
617	430.00	-70.000	429.00	.4490-03	.1796-03	.1796-03	.9000	3618-05	4760-05	2591-02	.2239-01	522.8



DATE 23 FEB 60

CH24B MODEL 60-0 IN THE AEDC VKI HYPERSONIC TUNNEL

PAGE 3229

CH24B 60-0 ORBITER BASE

(R4U142)

ORBITER BASE

PARAMETRIC DATA

MACH = 6.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 8.000    SPOBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
591	1.368	7.980	40.01	1391-01	433.9	1306.	9.05	4517-01	2.013	3814.	.1283-02	.7649-07

RUN NUMBER	HREF BTU/ P FT2SEC	SIN NO REF. R) = 0.175
591	3501-01	2878-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DIWOT DEG. R /SEC	TW DEG R
591	430.00	00000	428.00	1712-03	2055-03	.2055-03	.3000	.5994-05	7197-05	4683-02	.3771-01	524.3

DATE 23 FEB 80

0484B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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0484B 60-0 ORBITER BASE

(R4U142)

ORBITER BASE

PARAMETRIC DATA

MACH = 6.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
EDFLAP = 8.000    SPDBPK = .0000

\*\*\*TEST CONDITIONS\*\*

RUN NUMBER	PW/L /FT X10.6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
589	3.003	7.990	40.07	1748-01	673.7	1327	9.36	6257-01	3.109	3845.	.1949-02	.7754-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
589	4353-01	2339-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	AW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
589	320.00	-110.00	431.00	5196-03	6232-03	6232-03	3000	.2267-04	2719-04	1809-01	1524	528.8
589	430.00	00000	428.00	2677-03	.3210-03	3210-03	.9000	.1168-04	1401-04	9325-02	.7490-01	528.2
589	430.00	-70.000	429.00	2602-03	.3360-03	.3360-03	3000	.1223-04	1466.04	9768-02	8101-01	527.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U143)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 15.00    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
627	.5147	7.900	39 95	.1383-01	101 4	1242.	92 10	.1127-01	.4923	3717.	.3302-03	.7411-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
627	.1716-01	5643-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
627	430.00	.00000	428.00	1773-03	.2143-03	.2143-03	.9000	.3043-05	.3678-05	2188-02	.1764-01	522 5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U143)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 15.00    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
609	1.024	7.940	39 98	.1386-01	209.1	1261.	92.64	.2249-01	9925	3746.	.6553-03	.7454-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
609	.2443-01	.4012-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
609	430.00	.00000	428.00	.2424-03	.2924-03	.2924-03	.9000	.5922-05	7146-05	.4361-02	.3511-01	524.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U143)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 15.00 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
599	1.990	7.980	40.04	.1744-01	435.0	1307	95.13	4528-01	2.019	3815.	.1285-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
599	.3506-01	.2876-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
599	320.00	-110.00	431.00	.1414-03	1697-03	1697-03	.9000	.4956-05	.5951-05	.3875-02	.3272-01	524.9
599	430.00	.00000	428.00	.3534-03	4244-03	4244-03	.9000	.1239-04	.1488-04	.9689-02	7798-01	524.9
599	430.00	-70.000	429.00	.1213-03	1457-03	1457-03	.9000	.4255-05	.5108-05	.3329-02	2766-01	524.4

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OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O ORBITER BASE

(R4U143)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
BDFLAP = 15.00    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /F12
585	2.982	7 990	40.06	.1397-01	669.7	1328.	96 43	.6916-01	3.091	3846.	.1936-02	.7760-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) *.0175										
585	.4351-01	.2347-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
585	320.00	-110.00	431.00	6486-03	.7783-03	.7783-03	9000	.2822-04	3386-04	.2249-01	.1893	530.6
585	430.00	.00000	428 00	.2723-03	.3267-03	.3267-03	9000	.1185-04	.1421-04	.9456-02	.7589-01	529.6
585	430.00	-70.000	429 00	.3436-03	.4121-03	.4121-03	.9000	1495-04	1793-04	1194-01	.9891-01	529.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U144)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
BDFLAP = 23.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
629	5153	7.900	39.96	1729-01	101 8	1244.	92.25	1131-01	.4940	3720.	.3309-03	.7423-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
629	.1720-01	5638-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
629	320.00	-110.00	431 00	1323-03	1599-03	.1599-03	.9000	2276-05	.2750-05	.1641-02	.1387-01	522.7
629	430.00	00000	428 00	3622-03	1042-02	1042-02	9000	1483-04	1792-04	1069-01	.8614-01	522.9
629	430 00	-70 000	429.00	.5689-03	.6875-03	.6875-03	9000	.9785-05	1182-04	.7055-02	.5869-01	522.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U144)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = .0000  
 BDFLAP = 23.50    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
607	9872	7.940	39.96	.1383-01	205.3	1276	93.74	.2208-01	.9744	3769.	.6358-03	.7543-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
607	.2426-01	.4078-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
607	320.00	-110.00	431.00	9635-04	.1160-03	.1160-03	.9000	.2338-05	.2814-05	.1761-02	.1489-01	522.4
607	430 00	.00000	428.00	.5070-03	.6104-03	.6104-03	.9000	.1230-04	.1481-04	.9262-02	.7464-01	522.6
607	430 00	-70.000	429.00	.1744-03	.2099-03	.2099-03	9000	.4230-05	.5092-05	.3187-02	.2652-01	522.3



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U144)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVCH = .0000  
BDFLAP = 23.50    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
601	1.999	7.980	39.99	1388-01	435.3	1304	94.91	.4531-01	2.020	3811.	.1289-02	.7637-07

RUN NUMBER	HREF BTU/ P FT2SEC	STN NO REF (R) = 0175
601	3506-01	.2871-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.7 TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
601	320.00	-110.00	431.00	.8149-04	9793-04	.9793-04	.9000	.2857-05	3434-05	.2218-02	.1871-01	527.2
601	430.00	.00000	428.00	.3148-03	3783-03	3783-03	9000	.1104-04	1326-04	8577-02	.6895-01	526.7
601	430.00	-70.000	429.00	.2065-03	.2480-03	2480-03	9000	.7239-05	.8697-05	.5629-02	.4673-01	526.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U144)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = .0000  
 BDFLAP = 23.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
587	3.006	7.990	40 06	.1398-01	671.3	1323.	96.07	.6933-01	3.098	3839.	.1948-02	.7731-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
587	.4353-01	.2339-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
587	320.00	-110.00	431 00	.5843-03	.7013-03	.7013-03	.9000	.2544-04	.3053-04	.2017-01	.1698	529.7
587	430.00	.00000	428.00	.3665-03	.4397-03	.4397-03	9000	.1595-04	.1914-04	.1268-01	.1018	528.2
587	430.00	-70 000	429.00	.4635-03	.5561-03	.5561-03	9000	.2018-04	.2421-04	.1604-01	.1330	527.9

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4UJ45)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = -5.000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
681	5058	7.900	39.93	- 1034-01	101.2	1255.	93.06	.1125-01	.4913	3736.	3262-03	.7489-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
681	.1718-01	.5684-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
681	320 00	-110.00	431 00	.1612-03	.1946-03	.1946-03	.9000	2769-05	.3343-05	.2021-02	.1707-01	524 6
681	430 00	.00000	428.00	.4870-03	.5881-03	.5991-03	.9000	.8365-05	.1010-04	.6105-02	.4914-01	524.8

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U145)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = -5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
667	1.005	7.940	39 96	-.6922-02	205.3	1261.	92.64	.2208-01	.9744	3746.	.6433-03	.7454-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
667	.2421-01	.4049-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
667	430.00	.00000	428 00	.6527-03	.7882-03	.7882-03	.9000	.1580-04	.1908-04	.1159-01	.9315-01	527.3
667	430.00	-70.000	429.00	.7236-04	.8738-04	.8738-04	.9000	.1752-05	.2115-05	.1285-02	.1066-01	527.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U145)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40 00    BETA = .0000    ELEVON = 5.000  
BDFLAP = -5.000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
687	1.992	7 980	40 00	- 6947-02	434.9	1306	95 05	.4527-01	2.018	3814.	.1285-02	.7649-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
687	.3505-01	2875-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
687	320 00	-110.00	431 00	.4678-04	.5620-04	.5620-04	.9000	1640-05	.1970-05	1278-02	.1078-01	526.6
687	430.00	.00000	428 00	.2665-03	.3202-03	3202-03	.9000	.9343-05	1122-04	.7281-02	.5855-01	526.3
687	430 00	-70.000	429.00	.1132-03	1360-03	1360-03	.9000	3968-05	4766-05	.3092-02	.2567-01	526.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U145)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = -5.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
701	2 998	7.990	40 05	-.6978-02	669.5	1323.	96 07	.6914-01	3.090	3839.	.1942-02	.7731-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
701	.4347-01	.2342-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
701	320.00	-110.00	431.00	.3315-03	.3980-03	.3980-03	.9000	.1441-04	.1730-04	.1140-01	.9588-01	531.5
701	430.00	.00000	428.00	.1069-03	.1283-03	.1283-03	.9000	.4647-05	.5579-05	3677-02	.2947-01	531.4
701	430.00	-70.000	429 00	.4539-04	.5451-04	.5451-04	9000	.1973-05	2370-05	.1560-02	.1291-01	532.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U146)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = .0000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
679	5025	7 900	39 97	-.6923-02	100 5	1255	93.06	1117-01	.4881	3736	.3241-03	.7489-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
679	.1712-01	.5703-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
679	430.00	.00000	428.00	.3636-03	.4391-03	.4391-03	.9000	.6225-05	7519-05	.4540-02	.3653-01	525.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U146)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40 00    BETA = .0000    ELEVON = 5.000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
665	1.003	7.940	39 97	-.1732-01	205 8	1265.	92.93	.2213-01	.9768	3752.	.6429-03	7478-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
665	.2425-01	.4052-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
665	430.00	.00000	428.00	.1953-03	.2359-03	.2359-03	9000	.4736-05	.5721-05	3477-02	.2789-01	530.5



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U146)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
689	1 996	7.980	39.99	-.1041-01	434 3	1303.	94.84	.4521-01	2.015	3810.	.1287-02	.7631-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175										
689	.3502-01	2873-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
689	320.00	-110 00	431.00	.1047-03	.1257-03	.1257-03	.9000	.3665-05	.4403-05	.2850-02	.2406-01	525.2
689	430.00	00000	428.00	.1748-03	.2100-03	.2100-03	.9000	.6122-05	.7355-05	.4757-02	.3827-01	525.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U146)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
699	2.999	7 990	40.05	-.6984-02	670.4	1324.	96.14	.6923-01	3.094	3841.	.1944-02	.7736-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
699	.4351-01	.2341-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
699	320 00	-110.00	431 00	.2660-03	.3194-03	.3194-03	.9000	.1157-04	.1390-04	.9174-02	.7718-01	531.1
699	430 00	.00000	428.00	.9553-04	.1147-03	.1147-03	.9000	.4156-05	.4989-05	.3294-02	.2641-01	531.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3247

OH84B 60-0 ORBITER BASE

(R4U147)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = 8.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10.6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
683	.5030	7.900	39.93	-.6896-02	100.5	1254.	92.99	.1117-01	.4880	3735.	.3242-03	.7483-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
683	1712-01	5700-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG R
683	320.00	-110.00	431.00	.1827-03	.2205-03	.2205-03	.9000	.3127-05	.3775-05	.2282-02	.1928-01	523.8
683	430.00	00000	428.00	.3812-03	.4604-03	.4604-03	.9000	.6526-05	.7880-05	.4760-02	.3833-01	524.2
683	430.00	-70.000	429.00	.1799-03	.2173-03	.2173-03	.9000	.3080-05	.3719-05	.2246-02	.1866-01	524.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3248

OH84B 60-0 ORBITER BASE

(R4U147)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = 8.000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
669	1.010	7.940	39.95	-.1037-01	205 9	1259.	92.49	.2215-01	.9773	3743.	.6462-03	.7443-07
RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175										
669	.2424-01	.4040-01										

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
669	430.00	.00000	428 00	.5164-03	.6235-03	.6235-03	.9000	.1252-04	1511-04	.9169-02	.7374-01	526.1
669	430 00	-70 000	429.00	1734-03	.2093-03	.2093-03	.9000	.4202-05	.5074-05	.3079-02	.2556-01	526.0

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

PAGE 3249

OH84B 60-0 ORBITER BASE

(R4U147)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = 8.000    SPDBRK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
685	2.023	7.980	39.98	-6930-02	434.5	1292	94.03	.4523-01	2.016	3794.	.1298-02	7567-07

RUN NUMBER	HREF BTU/R FT <sup>2</sup> SEC	STN NO REF(R) = 0175
685	.3497-01	2858-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/T0	TAW/T0	H(T0) BTU/R FT <sup>2</sup> SEC	H(TAW) BTU/R FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	DTWDT DEG. R /SEC	TW DEG R
685	430.00	.00000	428.00	.2124-03	.2554-03	.2554-03	.9000	.7430-05	.8933-05	.5704-02	.4593-01	523.9

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U147)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
 BDFLAP = 8.000 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
703	2.990	7.990	40 01	- 6955-02	668.4	1324.	96.14	.6903-01	3.085	3841.	.1938-02	.7736-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
703	.4344-01	.2345-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
703	320 00	-110.00	431 00	.3319-03	.3983-03	.3983-03	9000	.1442-04	.1730-04	.1145-01	.8639-01	529.6
703	430.00	.00000	428 00	.3775-03	.4529-03	.4529-03	9000	.1640-04	.1968-04	.1303-01	.1046	529.2
703	430.00	-70 000	429.00	.3080-03	.3696-03	.3696-03	9000	.1338-04	.1606-04	.1062-01	.8801-01	529.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U148)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = 15.00    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 <sup>6</sup>	MACH	ALPHA DEG	BETA DEG.	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT <sup>3</sup>	MU LB-SEC /FT <sup>2</sup>
675	.5021	7.900	39.94	-.6904-02	100.2	1253.	92.91	.1114-01	.4866	3733.	.3235-03	.7477-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
675	.1709-01	5706-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
675	430.00	.00000	428.00	.3382-03	.4083-03	4083-03	.9000	5779-05	.6978-05	4212-02	3392-01	523.9
675	430.00	-70.000	429.00	.3090-03	.3731-03	.3731-03	.9000	.5280-05	.6376-05	.3847-02	.3198-01	524.1

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U148)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = 15.00    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
673	1.003	7.940	39.97	-.6929-02	205.6	1264.	92 86	2211-01	.9759	3751.	.6427-03	.7472-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
673	.2424-01	.4052-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
673	430.00	.00000	428.00	.4168-03	.5028-03	.5028-03	.9000	.1010-04	.1219-04	.7464-02	.6006-01	524.8



DATE 23 FEB 80

OH843 MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U148)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = 15 00    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
691	1.993	7.980	39.99	-.6942-02	434.6	1305.	94.98	.4524-01	2.017	3813.	.1286-02	.7643-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
691	.3504-01	.2875-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
691	320.00	-110.00	431.00	.4643-04	.5579-04	.5579-04	.9000	.1627-05	.1955-05	.1264-02	.1066-01	527.6
691	430.00	.00000	428.00	.1878-03	.2257-03	.2257-03	.9000	.6581-05	.7910-05	.5114-02	.4108-01	527.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U148)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5 000  
 BDFLAP = 15.00    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
697	2.999	7.990	40 00	-1.6947-02	668 9	1322.	96 00	.6908-01	3.087	3838.	.1942-02	.7725-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
697	4345-01	.2342-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
697	320.00	-110.00	431 00	.2112-03	.2536-03	.2536-03	.9000	.9176-05	.1102-04	.7261-02	.6111-01	530.4
697	430 00	.00000	428.00	.4064-03	.4878-03	.4878-03	.9000	.1766-04	.2119-04	1399-01	.1123	529.4
697	430 00	-70.000	429 00	3251-03	3901-03	3901-03	.9000	.1412-04	.1695-04	1119-01	.9272-01	529.3

DATE 23 FEB 80

OH84B MODEL 60-O IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-O ORBITER BASE

(R4U149)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = 23.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG	P0 PSIA	T0 DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
677	5060	7.900	39 96	- 6920-02	101.1	1254.	92.99	.1124-01	.4909	3735.	.3262-03	.7483-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
677	.1717-01	5684-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
677	320 00	-110.00	431 00	1363-03	.1646-03	1646-03	9000	.2340-05	.2826-05	.1706-02	.1441-01	524.7
677	430.00	.00000	428 00	.1285-02	.1552-02	.1552-02	.9000	.2206-04	.2665-04	.1608-01	.1295	524.7
677	430.00	-70 000	429.00	.5051-03	.6100-03	.6100-03	.9000	.8671-05	.1047-04	.6322-02	.5253-01	524.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U149)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = 23.50 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
671	1.007	7.940	39 96	-.1038-01	204.7	1257.	92 34	.2202-01	.9716	3740.	.6435-03	.7431-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
671	2416-01	.4047-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
671	430.00	.00000	428 00	.5191-03	.6268-03	6268-03	.9000	.1254-04	.1515-04	9171-02	.7378-01	525.5
671	430.00	-70 000	429.00	.1340-03	.1618-03	.1618-03	.9000	.3237-05	.3309-05	2367-02	.1966-01	525.5

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U149)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 5.000  
BDFLAP = 23.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
693	2 000	7.980	40 00	-.1042-01	434.5	1302.	94.76	.4523-01	2.016	3808.	.1288-02	.7626-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) = 0175
693	.3502-01	.2871-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG R
693	320.00	-110.00	431.00	6009-04	7222-04	7222-04	.9000	2104-05	2529-05	.1632-02	1377-01	526 3
693	430.00	.00000	428.00	3168-03	.3807-03	.3807-03	9000	1110-04	.1333-04	8608-02	6924-01	525.8
693	430.00	-70 000	429.00	2088-03	.2509-03	2509-03	.9000	.7314-05	.8787-05	5676-02	.4714-01	525.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U149)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 5.000  
BDFLAP = 23.50 SPD3RK = 0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
695	3.030	7.990	40.02	-6963-02	669.0	1313.	95.34	.6909-01	3.087	3825.	.1956-02	.7672-07

RUN NUMBER	HREF BTU/R FT2SEC	STN NO REF(R) = 0175
695	.4340-01	.2332-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
695	320.00	-110.00	431.00	.8341-03	.1001-02	.1001-02	.9000	.3620-04	.4343-04	.2855-01	.2412	524.1
695	430.00	.00000	428.00	.1265-03	.1517-03	.1517-03	.9000	.5488-05	.6585-05	.4325-02	.3481-01	524.7

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U150)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
BDFLAP = .0000    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
757	1.043	7.940	39 99	-.4654-06	214.1	1265.	92.93	.2302-01	1.016	3752.	.6687-03	.7478-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
757	.2474-01	3973-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
757	430.00	.00000	428.00	.1519-03	.1832-03	.1832-03	.9000	3757-05	.4532-05	.2777-02	.2234-01	525.6

DATE 23 FEB 80

OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U150)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40 00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = .0000    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
755	1 966	7.980	40 06	-.4684-06	429.7	1307.	95 13	.4474-01	1.994	3815.	.1269-02	.7655-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
755	.3485-01	.2894-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
755	430.00	.00000	428.00	.1507-03	.1811-03	.1811-03	.9000	.5254-05	6311-05	.4096-02	.3232-01	527.0
755	430.00	-70.000	429 00	.7373-04	.8858-04	.8858-04	.9000	.2569-05	.3087-05	.2002-02	.1661-01	527.4



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U150)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
BDFLAP = .0000 SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
745	3.041	7.990	40.06	-.3495-02	670.5	1312.	95.27	.6924-01	3 094	3823.	.1962-02	.7666-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
745	.4344-01	.2328-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
745	320.00	-110 00	431 00	.4315-03	.5185-03	.5185-03	.9000	.1875-04	.2253-04	.1465-01	.1233	530.0
745	430.00	.00000	428 00	.1680-03	.2020-03	.2020-03	.9000	.7300-05	.8773-05	.5703-02	.4574-01	530.5
745	430.00	-70 000	429 00	.4104-04	.4932-04	.4932-04	9000	.1783-05	.2143-05	.1392-02	.1153-01	530.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U151)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 15.00    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
765	.5049	7.900	39.98	-.3466-02	100.4	1250.	92 69	.1116-01	4875	3729.	.3249-03	.7459-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
765	.1710-01	.5692-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
765	320 00	-110.00	431.00	.5441-03	.6566-03	.6566-03	.9000	.9304-05	.1123-04	.6786-02	.5746-01	520.3
765	430.00	.00000	428 00	.9043-03	.1093-02	.1093-02	.9000	.1546-04	.1869-04	.1119-01	.9000-01	526.0
765	430.00	-70.000	429 00	.1781-03	.2153-03	.2153-03	.9000	.3045-05	.3681-05	.2203-02	.1829-01	526.2

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U151)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
BDFLAP = 15 00    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG.	P0 PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
759	1.001	7.940	39 99	-.4655-06	206 7	1270.	93 30	.2224-01	9813	3760.	.6433-03	.7508-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
759	2433-01	.4053-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
759	430.00	.00000	428 00	.1308-03	1577-03	1577-03	.9000	.3181-05	.3836-05	.2365-02	.1901-01	526.3

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U151)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 15.00    SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
753	2.020	7.980	40.04	-4678-06	434.4	1293.	94.11	.4523-01	2.016	3795.	.1297-02	.7573-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) =.0175
753	.3498-01	.2859-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. R /SEC	TW DEG. R
753	320.00	-110.00	431.00	.1093-03	.1313-03	.1313-03	.9000	.3822-05	4594-05	2939-02	.2484-01	523.6
753	430.00	.00000	428.00	.1436-03	.1728-03	.1728-03	.9000	.5023-05	6043-05	3846-02	.3091-01	527.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U151)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
BDFLAP = 15.00    SPOBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	PO PSIA	TO DEG R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
747	2.979	7.990	40.06	-.4686-06	660 0	1316.	95 56	.6816-01	3.046	3829.	.1925-02	.7690-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
747	.4312-01	.2351-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
747	320 00	-110 00	431 00	.2706-03	.3251-03	3251-03	.9000	.1107-04	.1402-04	.9159-02	.7707-01	530.7
747	430.00	.00000	428.00	.2057-03	.2471-03	.2471-03	.9000	.8869-05	.1066-04	.6955-02	.5575-01	531.5
747	430.00	-70.000	429 00	.6291-04	.7559-04	.7559-04	.9000	.2713-05	.3260-05	.2127-02	.1760-01	531.6

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U152)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000 ELEVON = 7.500  
 BDFLAP = 23.50 SPDBRK = .0000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
763	.4981	7.900	39.97	-.3462-02	99.31	1252.	92.84	.1104-01	.4822	3732.	.3209-03	.7471-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
763	.1701-01	.5729-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
763	320.00	-110.00	431.00	.8620-03	.1041-02	.1041-02	.9000	.1466-04	.1771-04	.1068-01	.9021-01	523.6
763	430.00	.00000	428.00	.2287-02	.2763-02	.2763-02	9000	.3890-04	.4699-04	.2828-01	.2277	524.7
763	430.00	-70.000	429.00	.7075-03	.8547-03	.8547-03	.9000	.1204-04	.1454-04	.8751-02	.7272-01	524.5

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U152)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
BDFLAP = 23.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG.	BETA DEG	P0 PSIA	T0 DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
761	1.006	7.940	39.99	-.4652-06	206.4	1265.	92.93	.2220-01	.9799	3752.	.6449-03	.7478-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF (R) = 0175
761	.2429-01	.4046-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	Z0	Y0	T/C NO	H/HREF R=1 0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(T0) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG. R
761	430.00	.00000	428.00	.4285-03	.5172-03	.5172-03	.9000	.1041-04	.1256-04	.7678-02	.6172-01	527.0

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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U152)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
 BDFLAP = 23.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
751	1.987	7.980	40 06	-.4685-06	435.2	1309.	95.27	.4531-01	2.020	3818.	.1284-02	.7667-07

RUN NUMBER	HREF BTU/ R FT2SEC	STN NO REF(R) =.0175
751	.3508-01	.2878-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. R /SEC	TW DEG R
751	320.00	-110.00	431.00	.1101-03	.1321-03	.1321-03	.9000	.3861-05	.4636-05	.3022-02	.2550-01	526.0
751	430.00	.00000	428.00	.2205-03	.2648-03	.2648-03	.9000	.7735-05	.9290-05	.6048-02	.4862-01	526.8



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OH84B MODEL 60-0 IN THE AEDC VKF HYPERSONIC TUNNEL

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OH84B 60-0 ORBITER BASE

(R4U152)

ORBITER BASE

PARAMETRIC DATA

MACH = 8.000    ALPHA = 40.00    BETA = .0000    ELEVON = 7.500  
BDFLAP = 23.50    SPDBRK = .0000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	RN/L /FT X10 6	MACH	ALPHA DEG	BETA DEG.	PO PSIA	TO DEG R	T DEG R	P PSIA	Q PSI	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2
749	2.958	7.990	40.06	-.4686-06	659.9	1322.	96.00	.6815-01	3.045	3838.	.1916-02	.7725-07

RUN NUMBER	HREF BTU/ R i T2SEC	STN NO REF(R) = 0175
749	.4315-01	.2358-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	ZO	YO	T/C NO	H/HREF R=1.0	H/HREF R=0 9	H/HREF R= TAW/TO	TAW/TO	H(TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG R /SEC	TW DEG. R
749	320 00	-110.00	431.00	.3826-03	.4590-03	.4590-03	9000	.1651 04	.1981-04	.1312-01	.1107	527.0
749	430.00	.00000	428 00	.2370-03	.2845-03	.2845-03	.9000	.1023-04	.1228-04	.8100-02	.6500-01	529.7
749	430.00	-70 000	429.00	.7360-04	.8834-04	.8834-04	.9000	.3176-05	.3812-05	.2515-02	.2083-01	529.8

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